

(FILE 'HOME' ENTERED AT 17:14:56 ON 01 APR 2004)

FILE 'REGISTRY' ENTERED AT 17:15:04 ON 01 APR 2004

L1 1 S ISOPULEGOL/CN  
L2 1 S L1  
L3 STRUCTURE UPLOADED  
L4 1 S L3  
L5 16 S L3 FUL

FILE 'CAPLUS, USPATFULL, CA, CAOLD' ENTERED AT 17:30:43 ON 01 APR 2004

FILE 'REGISTRY' ENTERED AT 17:30:56 ON 01 APR 2004

L6 1 S CITRONELLAL/CN  
L7 STRUCTURE UPLOADED  
L8 0 S L7  
L9 36 S L7 FUL  
L10 1 S 3,7-DIMETHYL-6-OCTENAL/CN  
L11 STRUCTURE UPLOADED  
L12 0 S L11  
L13 7 S L11 FUL  
L14 1 S 2385-77-5/RN  
L15 1 S 5949-05-3/RN

FILE 'CAPLUS, USPATFULL, CA, CAOLD' ENTERED AT 17:46:14 ON 01 APR 2004

L16 1340 S L1  
L17 5584 S L6  
L18 470 S L16 AND L17  
L19 27 S L18 AND ?ALUMINUM?  
L20 12 S L19 AND ?PHENOXY?  
L21 6 DUP REM L20 (6 DUPLICATES REMOVED)  
L22 556 S L5 AND L6  
L23 34 S L22 AND ?ALUMINUM?  
L24 13 S L23 AND ?PHENOXY?  
L25 7 S L24 NOT L21  
L26 5 DUP REM L25 (2 DUPLICATES REMOVED)  
L27 92 S L5 AND L14  
L28 5 S L27 AND ?ALUMINUM?  
L29 3 S L28 NOT L21  
L30 2 S L29 NOT L26  
L31 1 DUP REM L30 (1 DUPLICATE REMOVED)  
L32 22 S L5 AND L15  
L33 20 S L32 NOT L21  
L34 19 S L33 NOT L26  
L35 19 S L34 NOT L30  
L36 0 S L35 AND ?ALUMINUM?  
L37 1 S L35 AND ?PHENOXY?  
L38 10 DUP REM L35 (9 DUPLICATES REMOVED)  
L39 9 S L38 NOT L37

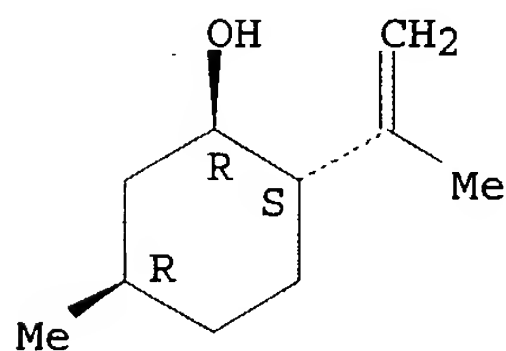
FILE 'CASREACT' ENTERED AT 18:04:55 ON 01 APR 2004

L40 STRUCTURE UPLOADED  
L41 2 S L40  
L42 35 S L40 FUL  
L43 33 S L42 NOT L41  
L44 33 DUP REM L43 (0 DUPLICATES REMOVED)  
L45 33 S L44  
L46 4 S L44 AND ?ALUMINUM?  
L47 29 S L45 NOT L46

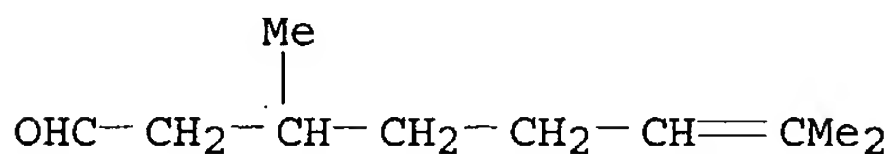
L21 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1  
 AN 2003:696714 CAPLUS  
 DN 139:235048  
 TI Perfume compositions containing surfactants  
 IN Yang, Lin; Kerschner, Judith Lynne  
 PA Unilever PLC, UK; Unilever NV; Hindustan Lever Limited  
 SO PCT Int. Appl., 69 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003072078	A1	20030904	WO 2003-EP1692	20030219
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2003166499	A1	20030904	US 2002-85736	20020228
PRAI	US 2002-85736	A	20020228		
AB	The present invention relates to compns. having a fragrance burst of at least 20% relative to a product before dilution The composition is selected such that perfume and surfactant in the composition yields a calculated Perfume Burst Index (PBI) value of < 3 as per algorithm defining the PBI. Thus, both the single perfume and the perfume mixture in a sodium laurate product have higher sensory scores for the 10-times diluted solution compared to the original undild. formulations.				
IT	89-79-2, Isopulegol 106-23-0, Citronellal RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (perfume compns. containing surfactants)				
RN	89-79-2 CAPLUS				
CN	Cyclohexanol, 5-methyl-2-(1-methylethenyl)-, (1R,2S,5R)- (9CI) (CA INDEX NAME)				

Absolute stereochemistry. Rotation (-).



RN 106-23-0 CAPLUS  
 CN 6-Octenal, 3,7-dimethyl- (8CI, 9CI) (CA INDEX NAME)



RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 2  
AN 2003:696508 CAPLUS  
DN 139:235014  
TI Process for making perfume-containing surfactant compositions having  
perfume burst when diluted  
IN Yang, Lin; Kerschner, Judith Lynne  
PA Unilever Home & Personal Care USA, USA  
SO U.S. Pat. Appl. Publ., 24 pp.  
CODEN: USXXCO  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003166498	A1	20030904	US 2002-85721	20020228
PRAI	US 2002-85721		20020228		

AB The present invention relates to a process for preparing or selecting  
compsn., e.g., personal wash compsn., having a fragrance burst of at least  
20% relative to a product before dilution The composition is selected such  
that  
perfume and surfactant in said composition yields a calculated Perfume Burst  
Index

(PBI) value of at least 3.0 as per algorithm defining the PBI. For  
example, two perfumes with PBI of .apprx.700 and .apprx.12 with varying  
surfactant concentration (surfactant CMC = 0.005 weight/weight) were tested.

With a

lower surfactant concentration in the original formulation, the initial  
fragrance

concentration above the product will be higher (e.g., because fewer fragrance  
mols. are in surfactant micelles) and maximum fragrance burst can be reached  
with fewer dilns. This is especially important, because the actual amount of  
dilution that typically occurs during product use is variable depending on  
the type of product and the consumer's habits. If the fragrance burst  
occurs with minimal dilution, the effect is more likely to be noticed by the  
product user. The other distinct advantage of products with low  
surfactant levels is that the absolute amount of fragrance available during the  
fragrance burst is greater, therefore the consumer will experience more  
fragrance during product use.

IT 89-79-2, Isopulegol 106-23-0, Citronellal

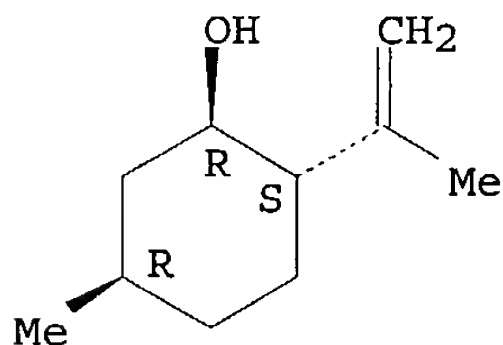
RL: COS (Cosmetic use); PRP (Properties); BIOL (Biological study); USES  
(Uses)

(perfume-containing surfactant comps. having perfume burst when diluted)

RN 89-79-2 CAPLUS

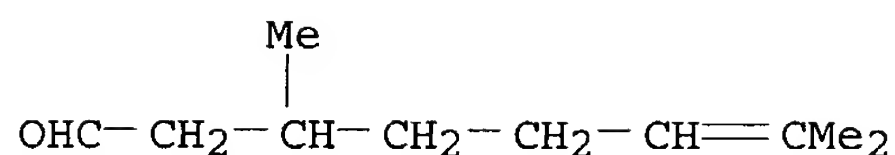
CN Cyclohexanol, 5-methyl-2-(1-methylethenyl)-, (1R,2S,5R)- (9CI) (CA INDEX  
NAME)

Absolute stereochemistry. Rotation (-).



RN 106-23-0 CAPLUS

CN 6-Octenal, 3,7-dimethyl- (8CI, 9CI) (CA INDEX NAME)



L21 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 3  
 AN 2003:696507 CAPLUS  
 DN 139:235013  
 TI Process for making perfume-containing surfactant compositions having  
 perfume burst and enhanced perfume deposition when diluted  
 IN Yang, Lin; Kerschner, Judith Lynne  
 PA Unilever Home & Personal Care USA, USA  
 SO U.S. Pat. Appl. Publ., 28 pp.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003166497	A1	20030904	US 2002-84907	20020228
PRAI	US 2002-84907		20020228		

AB The present invention relates to a process for preparing or selecting  
 compns., e.g., personal cleansing compns., having a fragrance burst of at  
 least 20% relative to a product before dilution as well as enhanced  
 deposition. The composition is selected such that perfume and surfactant in  
 said composition yields a calculated "Perfume Burst Index" (PBI) value of at  
 least

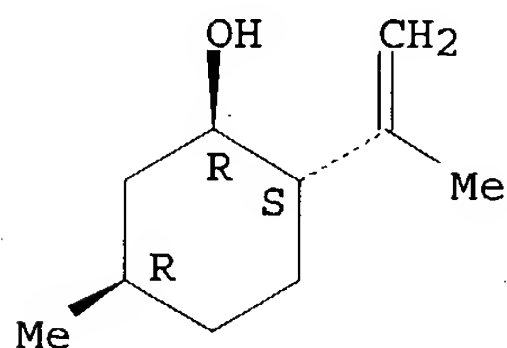
3.0 as per algorithm defining the PBI. For example, to achieve a small,  
 but potentially noticeable maximum fragrance burst of 20% from a product  
 containing surfactant, the PBI of the perfume should be greater than about  
 3.0. To produce a 50% enhancement of the fragrance, the PBI needs to be  
 greater than about 11 and to double the amount of fragrance upon use, the  
 PBI should be greater than about 27. The PBI can be calculated for any  
 desired perfume mol. in a surfactant system.

IT 89-79-2, Isopulegol 106-23-0, Citronellal  
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
 (perfume-containing surfactant compns. having perfume burst and enhanced  
 perfume deposition when diluted)

RN 89-79-2 CAPLUS

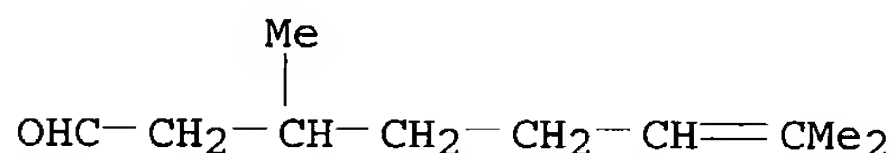
CN Cyclohexanol, 5-methyl-2-(1-methylethenyl)-, (1R,2S,5R)- (9CI) (CA INDEX  
 NAME)

Absolute stereochemistry. Rotation (-).



RN 106-23-0 CAPLUS

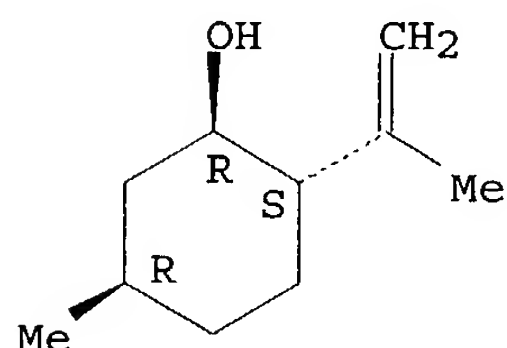
CN 6-Octenal, 3,7-dimethyl- (8CI, 9CI) (CA INDEX NAME)



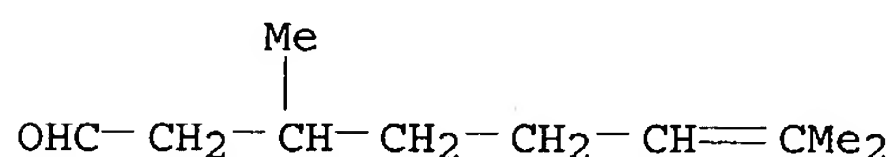
L21 ANSWER 4 OF 6 USPATFULL on STN  
 AN 2003:238341 USPATFULL  
 TI Perfume containing surfactant compositions having perfume burst when diluted  
 IN Yang, Lin, Fort Lee, NJ, UNITED STATES  
 Kerschner, Judith Lynne, Hawthorne, NJ, UNITED STATES  
 PA Unilever Home & Personal Care USA, Division of Conopco, Inc. (U.S. corporation)  
 PI US 2003166499 A1 20030904  
 AI US 2002-85736 A1 20020228 (10)  
 DT Utility  
 FS APPLICATION  
 LREP UNILEVER, PATENT DEPARTMENT, 45 RIVER ROAD, EDGEWATER, NJ, 07020  
 CLMN Number of Claims: 9  
 ECL Exemplary Claim: 1  
 DRWN 11 Drawing Page(s)  
 LN.CNT 1054  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 AB The present invention relates to compositions having a fragrance burst of at least 20% relative to a product before dilution. The composition is selected such that perfume and surfactant in said composition yields a calculated "Perfume Burst Index" (PBI) value of less than 3 as per algorithm defining the PBI.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 IT 89-79-2, Isopulegol 106-23-0, Citronellal  
 (perfume compns. containing surfactants)  
 RN 89-79-2 USPATFULL  
 CN Cyclohexanol, 5-methyl-2-(1-methylethenyl)-, (1R,2S,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

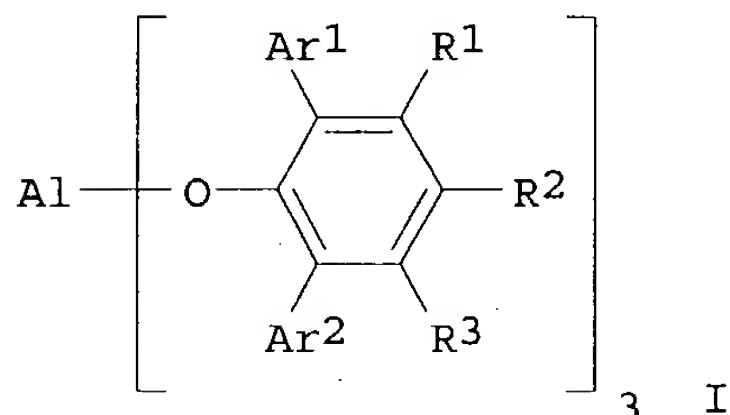


RN 106-23-0 USPATFULL  
 CN 6-Octenal, 3,7-dimethyl- (8CI, 9CI) (CA INDEX NAME)



L21 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 4  
 AN 2002:553086 CAPLUS  
 DN 137:124927  
 TI Process for producing isopulegol by citronellal selective cyclization over tris(2,6-diarylphenoxy)aluminum catalysts  
 IN Iwata, Takeshi; Okeda, Yoshiki; Hori, Yoji  
 PA Takasago International Corporation, Japan  
 SO Eur. Pat. Appl., 15 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1225163	A2	20020724	EP 2002-464	20020108
	EP 1225163	A3	20040114		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2002212121	A2	20020731	JP 2001-10527	20010118
	US 2002133046	A1	20020919	US 2002-45157	20020115
PRAI	JP 2001-10527	A	20010118		
OS	CASREACT 137:124927; MARPAT 137:124927				
GI					



AB A process for producing L-isopulegol by simple operations with safety in high yield. A process for producing isopulegol, which comprises selectively cyclizing citronellal in the presence of a tris(2,6-**diarylphenoxy**)**aluminum** catalyst represented by the following general formula (I) : wherein Al represents an **aluminum** atom, Ar1 and Ar2 each represent a substituted or unsubstituted aryl group or a heteroaryl group; and R1, R2 and R3 each represent a hydrogen atom, a halogen atom, an alkyl group having 1 to 8 carbon atom(s), an alkoxy group having 1 to 8 carbon atom(s), a substituted or unsubstituted aryl group, a dialkylamino group having 1 to 4 carbon atom(s), or a nitro group.

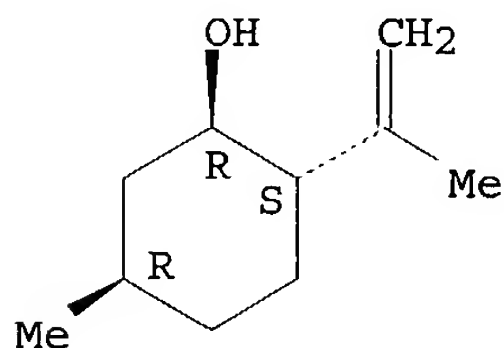
IT 89-79-2P

RL: IMF (Industrial manufacture); PREP (Preparation)  
(process for producing isopulegol by citronellal selective cyclization over in situ formed tris(2,6-**diarylphenoxy**)**aluminum** catalysts)

RN 89-79-2 CAPLUS

CN Cyclohexanol, 5-methyl-2-(1-methylethenyl)-, (1R,2S,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

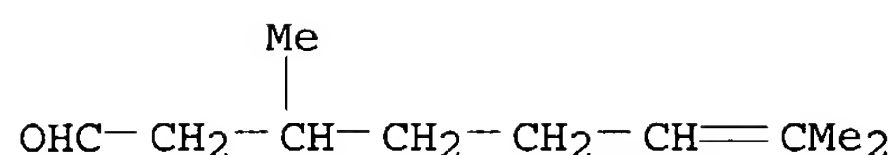


IT 106-23-0, Citronellal

RL: RCT (Reactant); RACT (Reactant or reagent)  
(process for producing isopulegol by citronellal selective cyclization over in situ formed tris(2,6-**diarylphenoxy**)**aluminum** catalysts)

RN 106-23-0 CAPLUS

CN 6-Octenal, 3,7-dimethyl- (8CI, 9CI) (CA INDEX NAME)



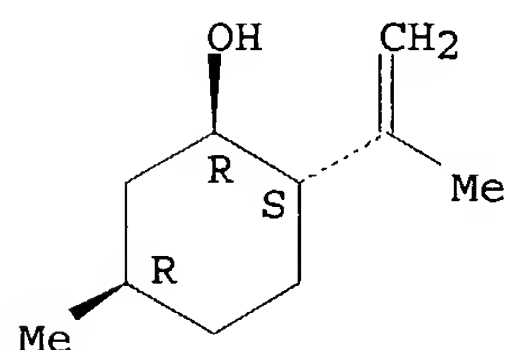
L21 ANSWER 6 OF 6 USPATFULL on STN  
 AN 2002:243852 USPATFULL  
 TI Process for producing isopulegol  
 IN Iwata, Takeshi, Kanagawa, JAPAN  
 Okeda, Yoshiki, Kanagawa, JAPAN  
 Hori, Yoji, Kanagawa, JAPAN  
 PA Takasago International Corporation, Ohta-ku, JAPAN (non-U.S. corporation)  
 PI US 2002133046 A1 20020919  
 AI US 2002-45157 A1 20020115 (10)  
 PRAI JP 2001-10527 20010118  
 DT Utility  
 FS APPLICATION  
 LREP FITZPATRICK CELLA HARPER & SCINTO, 30 ROCKEFELLER PLAZA, NEW YORK, NY, 10112  
 CLMN Number of Claims: 3  
 ECL Exemplary Claim: 1  
 DRWN No Drawings  
 LN.CNT 639  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 AB A process for producing 1-isopulegol by simple operations with safety in high yield. A process for producing isopulegol, which comprises selectively cyclizing citronellal in the presence of a tris(2,6-diarylphenoxy)aluminum catalyst represented by the following general formula (3): ##STR1##

wherein Al represents an aluminum atom, Ar.sup.1 and Ar.sup.2 each represent a substituted or unsubstituted aryl group or a heteroaryl group; and R.sup.1, R.sup.2 and R.sup.3 each represent a hydrogen atom, a halogen atom, an alkyl group having 1 to 8 carbon atom(s), an alkoxy group having 1 to 8 carbon atom(s), a substituted or unsubstituted aryl group, a dialkylamino group having 1 to 4 carbon atom(s), or a nitro group.

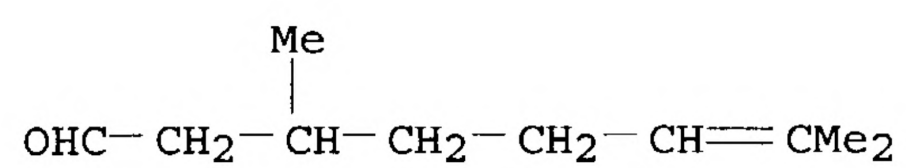
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 89-79-2P  
 (process for producing isopulegol by citronellal selective cyclization over in situ formed tris(2,6-diarylphenoxy)aluminum catalysts)  
 RN 89-79-2 USPATFULL  
 CN Cyclohexanol, 5-methyl-2-(1-methylethenyl)-, (1R,2S,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 106-23-0, Citronellal  
 (process for producing isopulegol by citronellal selective cyclization over in situ formed tris(2,6-diarylphenoxy)aluminum catalysts)  
 RN 106-23-0 USPATFULL  
 CN 6-Octenal, 3,7-dimethyl- (8CI, 9CI) (CA INDEX NAME)





L26 ANSWER 1 OF 5 USPATFULL on STN DUPLICATE 1  
 AN 2003:238340 USPATFULL  
 TI Process for making perfume containing surfactant compositions having  
 perfume burst when diluted  
 IN Yang, Lin, Fort Lee, NJ, UNITED STATES  
 Kerschner, Judith Lynne, Hawthorne, NJ, UNITED STATES  
 PA Unilever Home & Personal Care USA, Division of Conopco, Inc. (U.S.  
 corporation)  
 PI US 2003166498 A1 20030904  
 AI US 2002-85721 A1 20020228 (10)  
 DT Utility  
 FS APPLICATION  
 LREP UNILEVER, PATENT DEPARTMENT, 45 RIVER ROAD, EDGEWATER, NJ, 07020  
 CLMN Number of Claims: 11  
 ECL Exemplary Claim: 1  
 DRWN 12 Drawing Page(s)  
 LN.CNT 1067  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 AB The present invention relates to a process for preparing or selecting  
 compositions having a fragrance burst of at least 20% relative to a  
 product before dilution. The composition is selected such that perfume  
 and surfactant in said composition yields a calculated "Perfume Burst  
 Index" (PBI) value of less than 3 as per algorithm defining the PBI.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L26 ANSWER 2 OF 5 USPATFULL on STN DUPLICATE 2  
 AN 2003:238339 USPATFULL  
 TI Process for making perfume containing surfactant compositions having  
 perfume burst and enhanced perfume deposition when diluted  
 IN Yang, Lin, Fort Lee, NJ, UNITED STATES  
 Kerschner, Judith Lynne, Hawthorne, NJ, UNITED STATES  
 PA Unilever Home & Personal Care USA, Division of Conopco, Inc. (U.S.  
 corporation)  
 PI US 2003166497 A1 20030904  
 AI US 2002-84907 A1 20020228 (10)  
 DT Utility  
 FS APPLICATION  
 LREP UNILEVER, PATENT DEPARTMENT, 45 RIVER ROAD, EDGEWATER, NJ, 07020  
 CLMN Number of Claims: 11  
 ECL Exemplary Claim: 1  
 DRWN 15 Drawing Page(s)  
 LN.CNT 1158  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 AB The present invention relates to a process for preparing or selecting  
 compositions having a fragrance burst of at least 20% relative to a  
 product before dilution as well as enhanced deposition. The composition  
 is selected such that perfume and surfactant in said composition yields  
 a calculated "Perfume Burst Index" (PBI) value of less than 3 as per  
 algorithm defining the PBI.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L26 ANSWER 3 OF 5 USPATFULL on STN  
 AN 2003:47867 USPATFULL  
 TI Oxime carboxylic acid derivative precursors  
 IN Anderson, Denise, Zurich, SWITZERLAND  
 Frater, Georg, Winterthur, SWITZERLAND  
 PA Givaudan AG, Dubendorf, SWITZERLAND (non-U.S. corporation)  
 PI US 6521797 B1 20030218  
 AI US 1999-376776 19990817 (9)  
 PRAI EP 1998-115403 19980817  
 DT Utility

FS GRANTED  
 EXNAM Primary Examiner: Solola, T. A.  
 LREP Parfomak, Andrew N., Norris, McLaughlin & Marcus, P.A.  
 CLMN Number of Claims: 1  
 ECL Exemplary Claim: 1  
 DRWN 0 Drawing Figure(s); 0 Drawing Page(s)  
 LN.CNT 633  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 AB The present invention is an oxime carboxylic acid derivative having the  
 formula I: ##STR1##

wherein n is 1 or 0, X is O, R.<sup>2</sup> and R.<sup>3</sup> being part of an oxime  
 R.<sup>2</sup>R.<sup>3</sup>C.dbd.NOH are individually, substituted or unsubstituted,  
 branched or unbranched alkyl-, alkenyl-, akynyl-, cycloalkyl-,  
 cycloalkenyl-, or aromatic radical and contain less than 30 carbon  
 atoms, and R.<sup>1</sup> is a substituted or unsubstituted, branched or  
 unbranched alkyl-, alkenyl-, akynyl-, cycloalkyl-, cycloalkenyl-,  
 alkoxyalkyl-, aryloxyaryl-, alkoxyaryl-, aryloxyalkyl-, or aromatic  
 radical, or X.sub.nR.<sup>1</sup> is ##STR2##

which are useful as precursors for the delivery of organoleptic  
 compounds, especially for flavors, fragrances and masking agents, and/or  
 antimicrobial compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L26 ANSWER 4 OF 5 CA COPYRIGHT 2004 ACS on STN  
 AN 139:235048 CA  
 TI Perfume compositions containing surfactants  
 IN Yang, Lin; Kerschner, Judith Lynne  
 PA Unilever PLC, UK; Unilever NV; Hindustan Lever Limited  
 SO PCT Int. Appl., 69 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

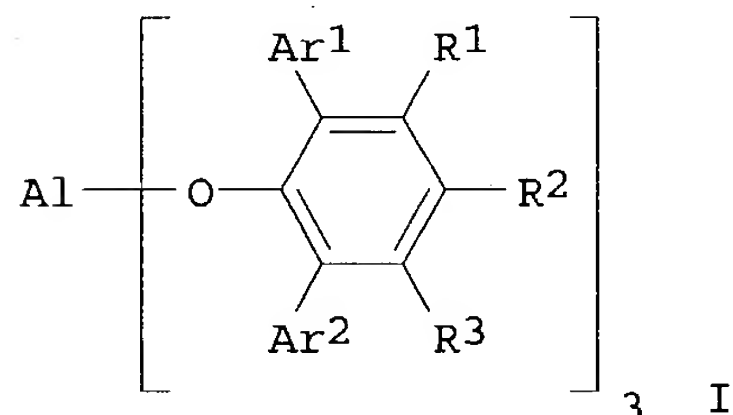
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003072078	A1	20030904	WO 2003-EP1692	20030219
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003166499	A1	20030904	US 2002-85736	20020228

PRAI US 2002-85736 A 20020228  
 AB The present invention relates to compns. having a fragrance burst of at  
 least 20% relative to a product before dilution The composition is selected  
 such  
 that perfume and surfactant in the composition yields a calculated Perfume  
 Burst  
 Index (PBI) value of < 3 as per algorithm defining the PBI. Thus, both  
 the single perfume and the perfume mixture in a sodium laurate product have  
 higher sensory scores for the 10-times diluted solution compared to the  
 original undild. formulations.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 5 OF 5 CA COPYRIGHT 2004 ACS on STN  
 AN 137:124927 CA  
 TI Process for producing isopulegol by citronellal selective cyclization over  
 tris(2,6-diarylphenoxy)aluminum catalysts  
 IN Iwata, Takeshi; Okeda, Yoshiki; Hori, Yoji  
 PA Takasago International Corporation, Japan  
 SO Eur. Pat. Appl., 15 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1225163	A2	20020724	EP 2002-464	20020108
	EP 1225163	A3	20040114		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2002212121	A2	20020731	JP 2001-10527	20010118
	US 2002133046	A1	20020919	US 2002-45157	20020115
PRAI	JP 2001-10527	A	20010118		
OS	CASREACT 137:124927; MARPAT 137:124927				
GI					



AB A process for producing L-isopulegol by simple operations with safety in high yield. A process for producing isopulegol, which comprises selectively cyclizing citronellal in the presence of a tris(2,6-diarylphenoxy)aluminum catalyst represented by the following general formula (I) : wherein Al represents an aluminum atom, Ar1 and Ar2 each represent a substituted or unsubstituted aryl group or a heteroaryl group; and R1, R2 and R3 each represent a hydrogen atom, a halogen atom, an alkyl group having 1 to 8 carbon atom(s), an alkoxy group having 1 to 8 carbon atom(s), a substituted or unsubstituted aryl group, a dialkylamino group having 1 to 4 carbon atom(s), or a nitro group.

=>

L31 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1

AN 2003:945423 CAPLUS

DN 140:5181

TI Preparation of citronellal, isopulegone, and isopulegol from pulegone

IN Yagi, Misao; Sayo, Noboru

PA Takasago Perfumery Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003342220	A2	20031203	JP 2002-155034	20020529
PRAI	JP 2002-155034		20020529		

AB Citronellal (I), useful for perfume (no data), is prepared by isomerization of pulegone (II) in the presence of catalysts, fractionation of isopulegone (III) from the isomerization mixts., hydrogenation of III over heterogeneous catalysts, and thermal decomposition of the resulting isopulegol. Thus, (5R)-II was isomerized in the presence of NSA 185 (naphthenic acid) and CsCO<sub>3</sub> at 200° and fractionated to give (2,5R)-III, which was hydrogenated over Cu-Cr and thermally decomposed to give (3R)-I with 95.3%ee.

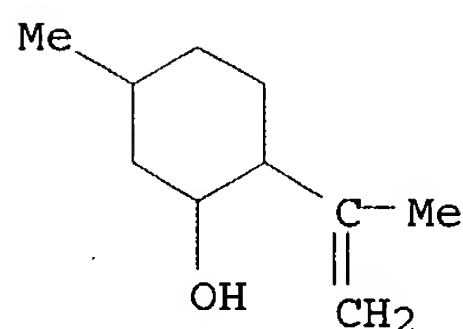
IT 7786-67-6P, Cyclohexanol, 5-methyl-2-(1-methylethenyl)-  
628693-74-3P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of citronellal for perfumes by isomerization of pulegone, hydrogenation of isopulegone, and thermal decomposition of isopulegol)

RN 7786-67-6 CAPLUS

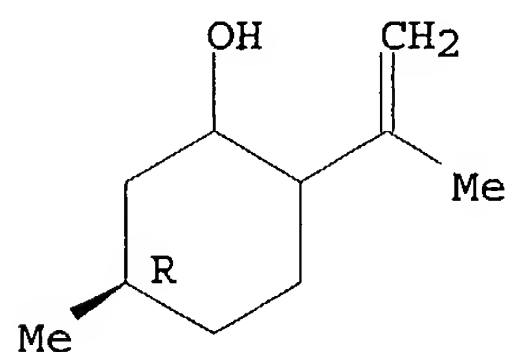
CN Cyclohexanol, 5-methyl-2-(1-methylethenyl)- (9CI) (CA INDEX NAME)



RN 628693-74-3 CAPLUS

CN Cyclohexanol, 5-methyl-2-(1-methylethenyl)-, (5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 2385-77-5P

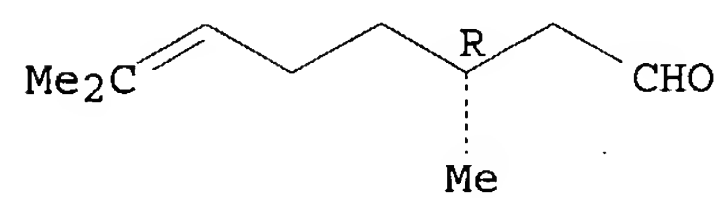
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(preparation of citronellal for perfumes by isomerization of pulegone, hydrogenation of isopulegone, and thermal decomposition of isopulegol)

RN 2385-77-5 CAPLUS

CN 6-Octenal, 3,7-dimethyl-, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L37 ANSWER 1 OF 1 USPATFULL on STN  
 AN 2001:182552 USPATFULL  
 TI Optically active, oxygenated, alicyclic compounds and their use as  
 perfuming ingredients  
 IN Margot, Christian, Gilly, Switzerland  
 PI US 2001031710 A1 20011018  
 AI US 2001-811958 A1 20010319 (9)  
 PRAI CH 2000-20000523 20000320  
 DT Utility  
 FS APPLICATION  
 LREP Allan A. Fanucci, WINSTON & STRAWN, 200 Park Avenue, New York, NY,  
 10166-4193  
 CLMN Number of Claims: 8  
 ECL Exemplary Claim: 1  
 DRWN No Drawings  
 LN.CNT 1122  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 AB The compounds of the formula ##STR1##

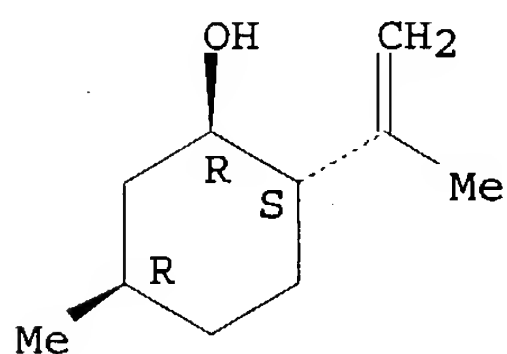
wherein R.sub.1 and R.sub.2 represent, independently from each other, a  
 hydrogen atom or a methyl group and R.sub.3 represents a linear or  
 branched, saturated or unsaturated, lower alkyl radical, in the form of  
 an optically active isomer of the formula ##STR2##

wherein the wavy line indicates one or other of the two possible  
 orientations of the OH group, and mixtures of these isomers can be used  
 to impart fragrances of the woody and amber-scented type, devoid of any  
 animal/perspiration characteristics, to consumer products.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

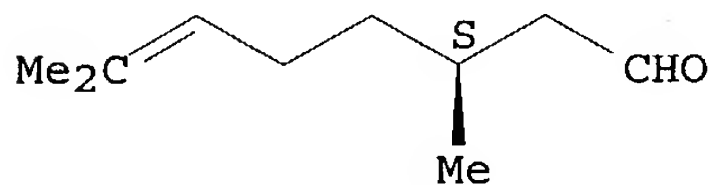
IT 89-79-2, Isopulegol 5949-05-3, (-)-S-Citronellal  
 (optically active, oxygenated, alicyclic compds. and their use as  
 perfuming ingredients)  
 RN 89-79-2 USPATFULL  
 CN Cyclohexanol, 5-methyl-2-(1-methylethenyl)-, (1R,2S,5R)- (9CI) (CA INDEX  
 NAME)

Absolute stereochemistry. Rotation (-).



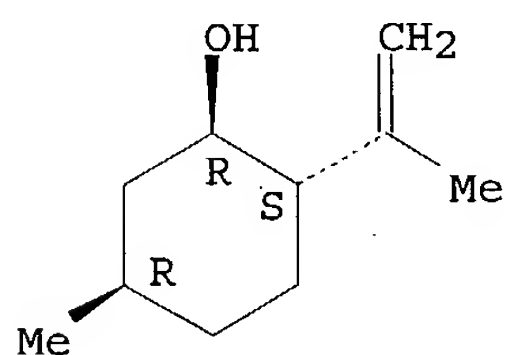
RN 5949-05-3 USPATFULL  
 CN 6-Octenal, 3,7-dimethyl-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



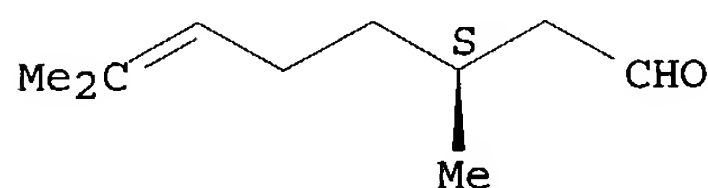
L39 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2003:643623 CAPLUS  
 DN 139:307899  
 TI Biotransformation of Citronellal by *Solanum aviculare* Suspension Cultures: Preparation of p-Menthane-3,8-diols and Determination of Their Absolute Configurations  
 AU Vanek, Tomas; Novotny, Michal; Podlipna, Radka; Saman, David; Valterova, Irena  
 CS Institute of Organic Chemistry and Biochemistry, Academy of Sciences of the Czech Republic, Prague, 166 10, Czech Rep.  
 SO Journal of Natural Products (2003), 66(9), 1239-1241  
 CODEN: JNPRDF; ISSN: 0163-3864  
 PB American Chemical Society  
 DT Journal  
 LA English  
 OS CASREACT 139:307899  
 AB Citronellal was transformed by *Solanum aviculare* suspension cultures to menthane-3,8-diols. Cis-Menthane-3,8-diol dominated over the trans-isomer (39% and 15%, resp.). Absolute configurations of menthane-3,8-diols were assigned by critical anal. of <sup>1</sup>H and <sup>19</sup>F NMR spectra of prepared esters with 2-methoxy-2-phenyl-3,3,3-trifluoropropanoic acid. Citronellol and isopulegol were other products of the transformation (23% and 17%, resp.). The reaction course was identical for both citronellal enantiomers.  
 IT **89-79-2P**, Isopulegol  
 RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (preparation of p-menthane-3,8-diols via biotransformation of citronellal using *Solanum aviculare* suspension cultures and determination of their absolute configurations)  
 RN 89-79-2 CAPLUS  
 CN Cyclohexanol, 5-methyl-2-(1-methylethenyl)-, (1R,2S,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT **5949-05-3**, (-)-Citronellal  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of p-menthane-3,8-diols via biotransformation of citronellal using *Solanum aviculare* suspension cultures and determination of their absolute configurations)  
 RN 5949-05-3 CAPLUS  
 CN 6-Octenal, 3,7-dimethyl-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

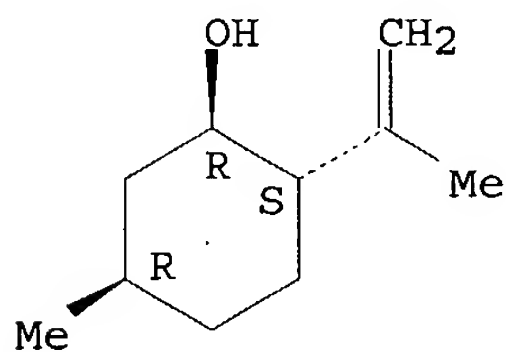


RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD

## ALL CITATIONS AVAILABLE IN THE RE FORMAT

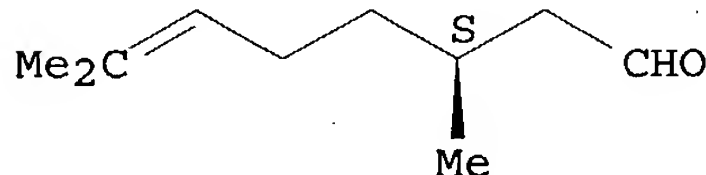
L39 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2001:725094 CAPLUS  
 DN 136:51244  
 TI Backhousia citriodora F. Muell.: Rediscovery and chemical characterization of the L-citronellal form and aspects of its breeding system  
 AU Doran, J. C.; Brophy, J. J.; Lassak, E. V.; House, A. P. N.  
 CS CSIRO Forestry and Forest Products, Kingston, ACT 2604, Australia  
 SO Flavour and Fragrance Journal (2001), 16(5), 325-328  
 CODEN: FFJOED; ISSN: 0882-5734  
 PB John Wiley & Sons Ltd.  
 DT Journal  
 LA English  
 AB The rare L-citronellal form of Backhousia citriodora F. Muell. was first reported in 1950, but attempts to relocate it were unsuccessful until 1996. The quest to relocate trees of this type has been driven by interest in L-citronellal for perfumery. The common, citral form of the species is already under cultivation for oil production in Australia. This paper reports on the rediscovery of the L-citronellal form, first in 1996 in a year-old provenance/progeny trial of B. citriodora in southeastern Queensland, and then in a natural population on Queensland's Sunshine Coast in 1998. The three L-citronellal trees in the trial gave foliar oil concns. (g/100 g dry weight) of 3.2, 2.2 and 1.8, resp., when sampled in Nov. 1996. The same trees sampled in Mar. 1999 gave pale yellow oils consisting of 85-89% citronellal, 6-9% isopulegol isomers with small quantities of citronellol (approx. 3%) and several other compds. Data on the physicochem. properties of these oils are given in the paper. Seed from a single mature L-citronellal tree gave progeny of both the L-citronellal and citral form in a ratio of approx. 1:1. Propagation material from many more plants of the L-citronellal form needs to be collected and assembled in breeding populations. This would form the basis of a selection and breeding program, should this chemotype show economic potential.  
 IT 89-79-2, Isopulegol 5949-05-3, L-Citronellal  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (rediscovery and chemical characterization of L-citronellal form of Backhousia citriodora and aspects of its breeding system)  
 RN 89-79-2 CAPLUS  
 CN Cyclohexanol, 5-methyl-2-(1-methylethenyl)-, (1R,2S,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 5949-05-3 CAPLUS  
 CN 6-Octenal, 3,7-dimethyl-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

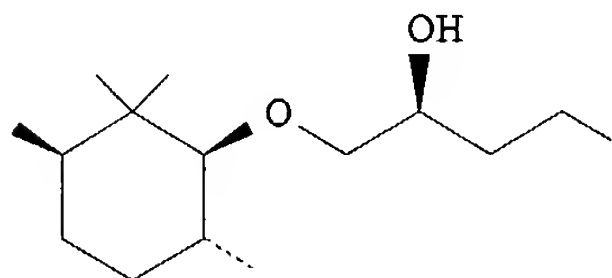




RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L39 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 2001:709681 CAPLUS  
DN 135:277773  
TI Optically active, oxygenated, alicyclic compounds and their use as  
perfuming ingredients  
IN Margot, Christian  
PA Firmenich SA, Switz.  
SO Eur. Pat. Appl., 21 pp.  
CODEN: EPXXDW  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1136061	A2	20010926	EP 2001-105678	20010307
	EP 1136061	A3	20031217		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 2001031710	A1	20011018	US 2001-811958	20010319
	JP 2001316316	A2	20011113	JP 2001-81492	20010321
PRAI	CH 2000-523	A	20000320		
OS	MARPAT 135:277773				
GI					



I

AB The compds. of the formula wherein R1 and R2 represent, independently from each other, a hydrogen atom or a Me group and R3 represents a linear or branched, saturated or unsatd., lower alkyl radical, in the form of an optically active isomer of the formula wherein the wavy line indicates one or other of the two possible orientations of the OH group, and mixts. of these isomers can be used to impart fragrances of the woody and amber-scented type, devoid of any animal/perspiration characteristics, to consumer products. Thus, (+)-(1'R,2S,3'S,6'S)-1-(2',2',3',6'-tetramethyl-1'-cyclohexyloxy)-2-pentanol (I) was prepared by the reaction of (+)-(1R,2S,3S,6S)-2,2,3,6-tetramethylcyclohexanol and (S)-1,2-epoxypentane. The addition of 100 parts of I to a base perfume intensified the patchouli note of the fragrance, imparting to it a more amber-scented, balsamic, almost juicy connotation.

IT 89-79-2, Isopulegol 5949-05-3, (-)-S-Citronellal  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(optically active, oxygenated, alicyclic compds. and their use as perfuming ingredients)

RN 89-79-2 CAPLUS  
CN Cyclohexanol, 5-methyl-2-(1-methylethenyl)-, (1R,2S,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

AB A process for the preparation of cyclic acetal I an insect repellent, along with other monoterpenoid cyclization products, via an acetalization reaction of citronellal using a vermiculite treated with a mineral acid as a catalyst. Thus, an aqueous soln of citronellal was heated at 150° for 3 h in the presence of the expanded vermiculite catalyst to give I, along with  $\alpha$ -terpineol, isopulegol and neoisopulegol,.

IT 29141-10-4P, Neoisopulegol 50373-36-9P,  
( $\pm$ )-Isopulegol

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP

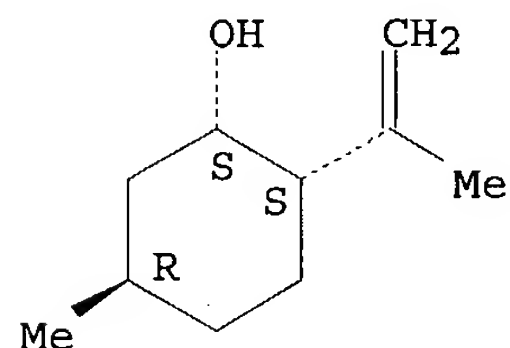
(Preparation)

(process for the preparation of a cyclic acetal of citronellal using an expanded vermiculite catalyst)

RN 29141-10-4 CAPLUS

CN Cyclohexanol, 5-methyl-2-(1-methylethenyl)-, (1R,2R,5S)-rel- (9CI) (CA INDEX NAME)

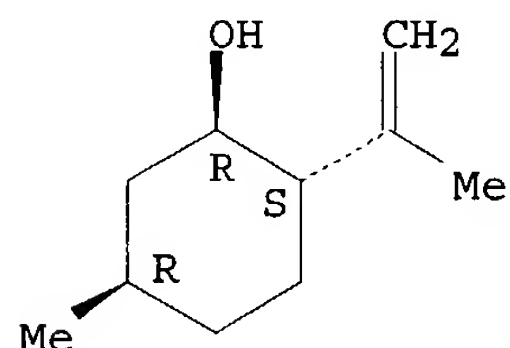
Relative stereochemistry.



RN 50373-36-9 CAPLUS

CN Cyclohexanol, 5-methyl-2-(1-methylethenyl)-, (1R,2S,5R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT 5949-05-3, (-)-Citronellal

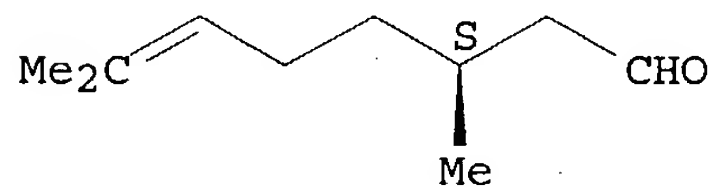
RL: RCT (Reactant); RACT (Reactant or reagent)

(process for the preparation of a cyclic acetal of citronellal using an expanded vermiculite catalyst)

RN 5949-05-3 CAPLUS

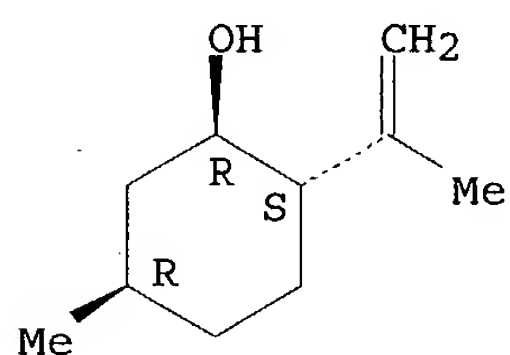
CN 6-Octenal, 3,7-dimethyl-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



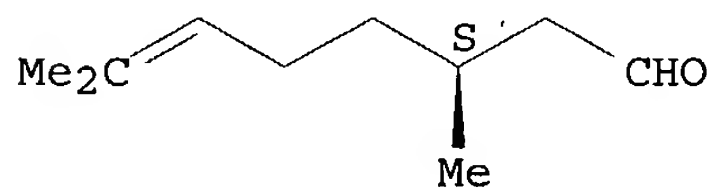
L39 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2000:511292 CAPLUS  
 DN 134:136430  
 TI Composition and Stereoanalysis of Cymbopogon winterianus Jowitt Oil from Southern Brazil  
 AU Lorenzo, D.; Dellacassa, E.; Atti-Serafini, L.; Santos, A. C.; Frizzo, C.; Paroul, N.; Moyna, P.; Mondello, L.; Dugo, G.  
 CS Catedra de Farmacognosia, Facultad de Quimica, Universidad de la Republica, Montevideo, UR-11800, Urug.  
 SO Flavour and Fragrance Journal (2000), 15(3), 177-181  
 CODEN: FFJOED; ISSN: 0882-5734  
 PB John Wiley & Sons Ltd.  
 DT Journal  
 LA English  
 AB The hydrodistd. essential oil from aerial parts of C. winterianus, cultivated in Southern Brazil, was analyzed by GC-MS. Thirty-one components, representing 96% of the oil, were characterized. Enantiomeric ratios of limonene, linalool, citronellal and  $\beta$ -citronellol were obtained by multidimensional gas chromatog., by using a developmental model set up with 2 GC ovens. The enantiomeric distributions are discussed as indicators of origin authenticity and quality of this oil.  
 IT 89-79-2, Isopulegol 5949-05-3, (-)-Citronellal  
 RL: ANT (Analyte); BOC (Biological occurrence); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence)  
 (composition and stereo anal. of Cymbopogon winterianus oil from Southern Brazil)  
 RN 89-79-2 CAPLUS  
 CN Cyclohexanol, 5-methyl-2-(1-methylethenyl)-, (1R,2S,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 5949-05-3 CAPLUS  
 CN 6-Octenal, 3,7-dimethyl-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L39 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1990:610353 CAPLUS  
 DN 113:210353  
 TI The chemical composition of Citrus hystrix DC (Swangi)  
 AU Sato, Akiyoshi; Asano, Kenichi; Sato, Toshiya  
 CS Cent. Res. Lab., Takasago Int. Corp., Tokyo, 144, Japan  
 SO Journal of Essential Oil Research (1990), 2(4), 179-83

CODEN: JEOREG; ISSN: 1041-2905

DT Journal

LA English

AB The chemical composition of the essential oils of the flavoring agent Swangi was

investigated by gas chromatog. and gas chromatog.-mass spectrometry.

(-)-Citronellal was the main component (81%) of the leaf oil. It was also the main component of the twig oil (78.64%), and a major component of the peel oil (23.64%) in combination with  $\beta$ -pinene (25.93%) and sabinene (20.36%). In total, 57 constituents were characterized in the leaf oil. 2,6-Dimethyl-5-heptenal, citronellic acid, and safrole were more unusual components. An extract of the juice, which contained  $\beta$ -pinene (39.50%) and terpinen-4-ol (17.55%), was not very similar in composition to an extract

of

the peel. This latter extract, which contained  $\beta$ -pinene (31.54%), sabinene (15.57%) and citronellal (16.80%), was qual. similar in composition to the peel oil.

IT 89-79-2, Isopulegol 5949-05-3, (-)-Citronellal

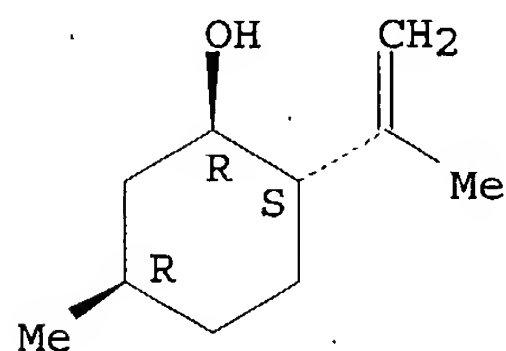
RL: BIOL (Biological study)

(of Citrus hystrix essential oils and aroma)

RN 89-79-2 CAPLUS

CN Cyclohexanol, 5-methyl-2-(1-methylethenyl)-, (1R,2S,5R)- (9CI) (CA INDEX NAME)

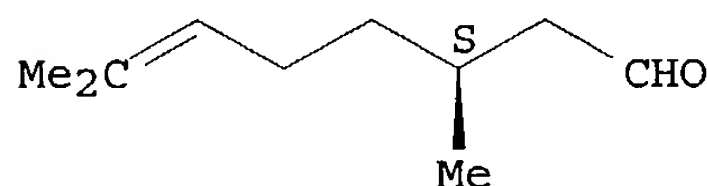
Absolute stereochemistry. Rotation (-).



RN 5949-05-3 CAPLUS

CN 6-Octenal, 3,7-dimethyl-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L39 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1989:515597 CAPLUS

DN 111:115597

TI Large-scale preparation of pure (+)-(1S,2R,5S)-5-methyl-2-(1-methyl-1-phenylethyl)cyclohexanol

AU Buschmann, Helmut; Scharf, Hans Dieter

CS Inst. Org. Chem., RWTH Aachen, Aachen, D-5100, Fed. Rep. Ger.

SO Synthesis (1988), (10), 827-30

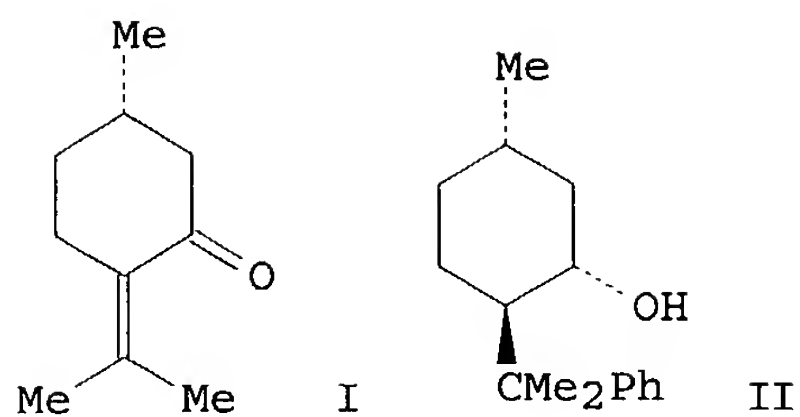
CODEN: SYNTBF; ISSN: 0039-7881

DT Journal

LA English

OS CASREACT 111:115597

GI



AB (S)-(-)-Pulegone (I) was prepared from (S)-(-)-citronellol on a preparative scale. I was readily converted into (+)-8-phenylmenthol II via a simplified literature procedure. With II available in larger amts. it can be used as a chiral auxiliary in stoichiometric asym. syntheses.

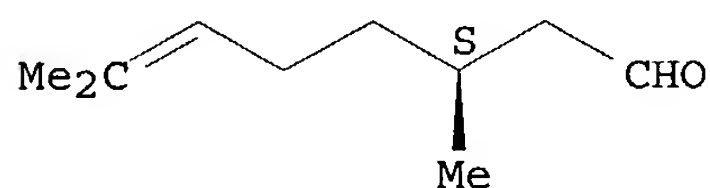
IT 5949-05-3P, (S)-(-)-Citronellal

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and cyclization of)

RN 5949-05-3 CAPLUS

CN 6-Octenal, 3,7-dimethyl-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 18674-65-2P 104870-56-6P 122517-60-6P

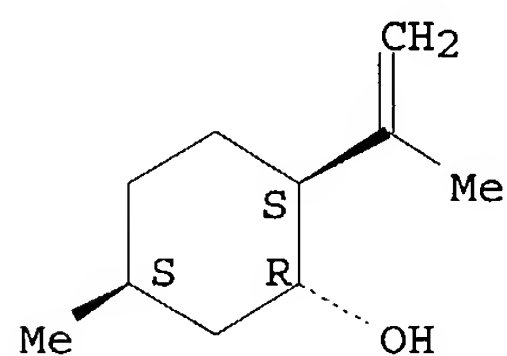
122517-61-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and oxidation of)

RN 18674-65-2 CAPLUS

CN Cyclohexanol, 5-methyl-2-(1-methylethenyl)-, (1R,2S,5S)- (9CI) (CA INDEX NAME)

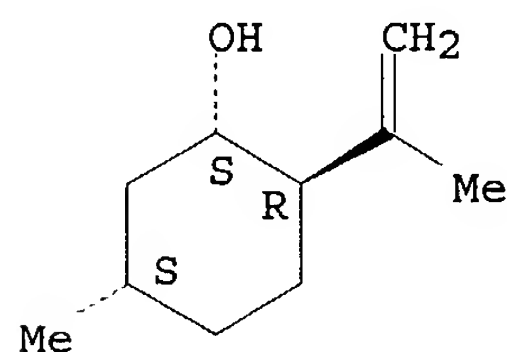
Absolute stereochemistry.



RN 104870-56-6 CAPLUS

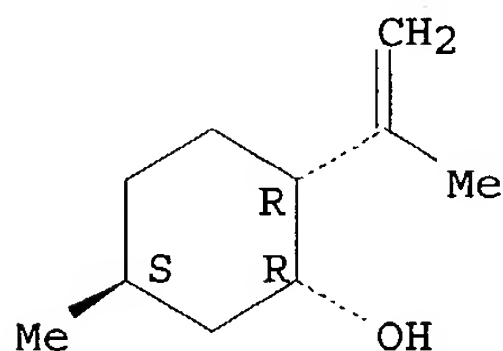
CN Cyclohexanol, 5-methyl-2-(1-methylethenyl)-, (1S,2R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



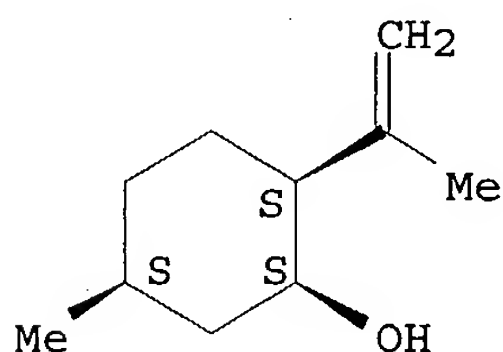
RN 122517-60-6 CAPLUS  
CN Cyclohexanol, 5-methyl-2-(1-methylethenyl)-, (1R,2R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

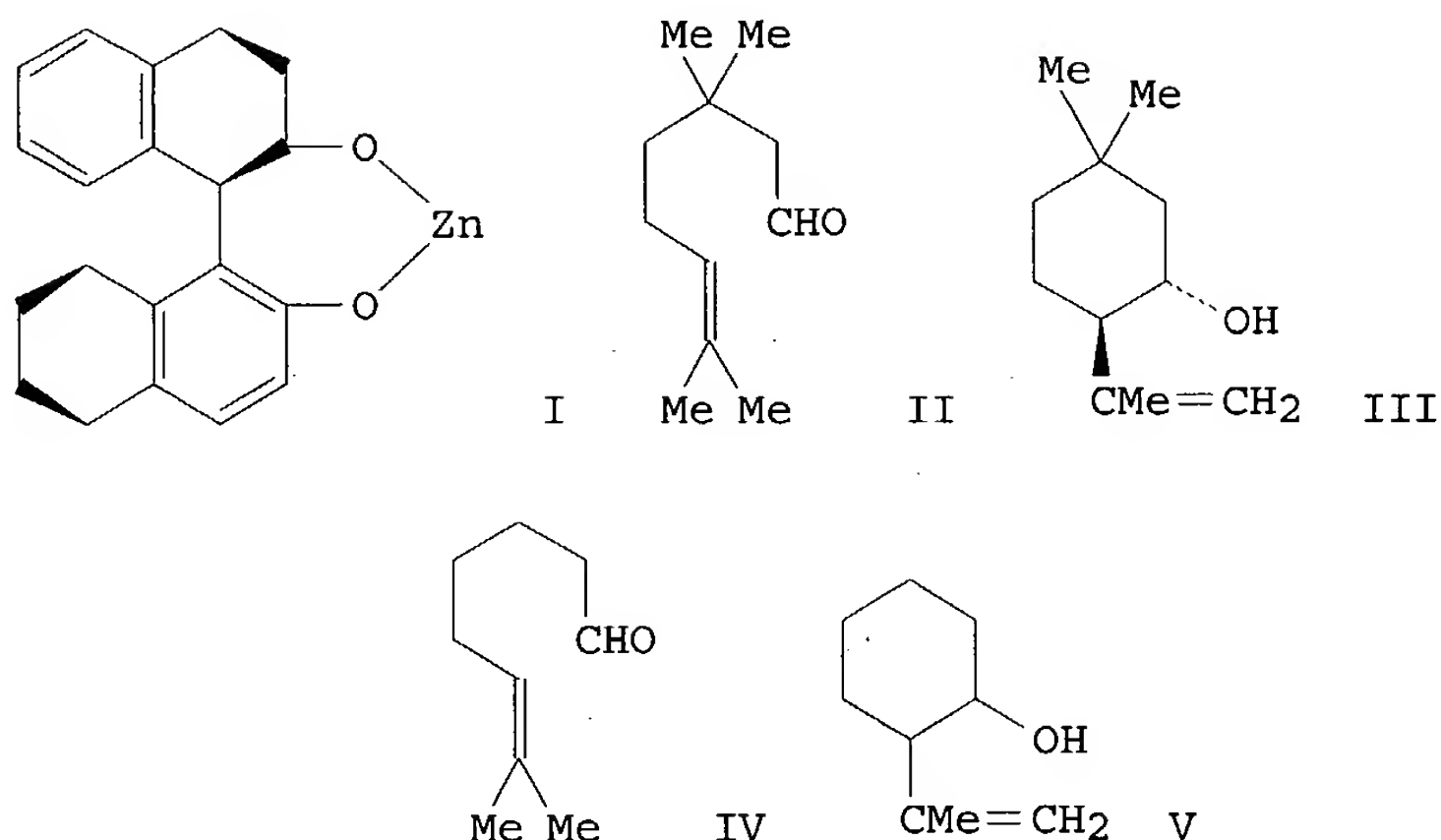


RN 122517-61-7 CAPLUS  
CN Cyclohexanol, 5-methyl-2-(1-methylethenyl)-, [1S-(1 $\alpha$ ,2 $\alpha$ ,5 $\alpha$ )]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L39 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 1987:213447 CAPLUS  
DN 106:213447  
TI Asymmetric cyclization of unsaturated aldehydes catalyzed by a chiral Lewis acid  
AU Sakane, Soichi; Maruoka, Keiji; Yamamoto, Hisashi  
CS Dep. Appl. Chem., Nagoya Univ., Nagoya, 464, Japan  
SO Tetrahedron (1986), 42(8), 2203-9  
CODEN: TETRAB; ISSN: 0040-4020  
DT Journal  
LA English  
OS CASREACT 106:213447  
GI



AB A highly enantioselective cyclization of unsatd. aldehydes was accomplished with the chiral zinc reagent I derived from  $\text{Me}_2\text{Zn}$  and (R)-(+)-1,2'-bi-2-naphthol. Thus, aldehyde II is treated with I producing the trans alc. III with high optical purity. In contrast, aldehyde IV affords the totally racemic alc. V. Since I possesses  $C_2$ -symmetry, either enantiomer can be prepared from the unsatd. aldehyde by choosing (R)-(+)- or (S)-(1-)-1,1'-bi-2-naphthol.

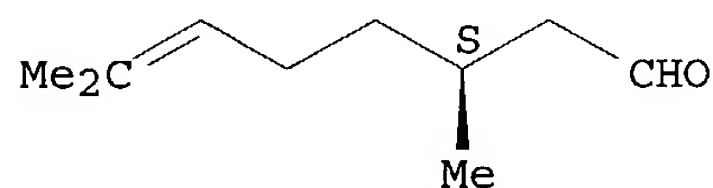
IT 5949-05-3

RL: RCT (Reactant); RACT (Reactant or reagent)  
(cyclization of, with chiral zinc reagent)

RN 5949-05-3 CAPLUS

CN 6-Octenal, 3,7-dimethyl-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



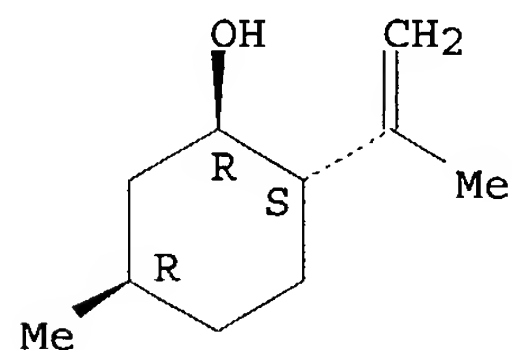
IT 89-79-2P 104870-56-6P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, via cyclization of unsatd. aldehyde with chiral zinc reagent)

RN 89-79-2 CAPLUS

CN Cyclohexanol, 5-methyl-2-(1-methylethenyl)-, (1R,2S,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

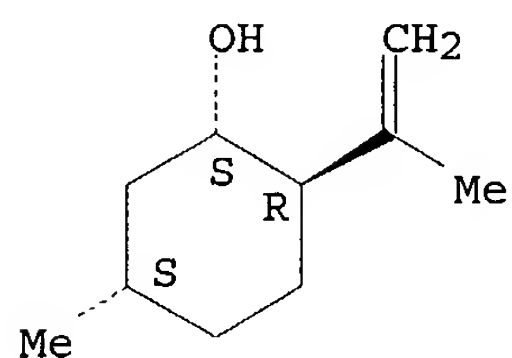


RN 104870-56-6 CAPLUS

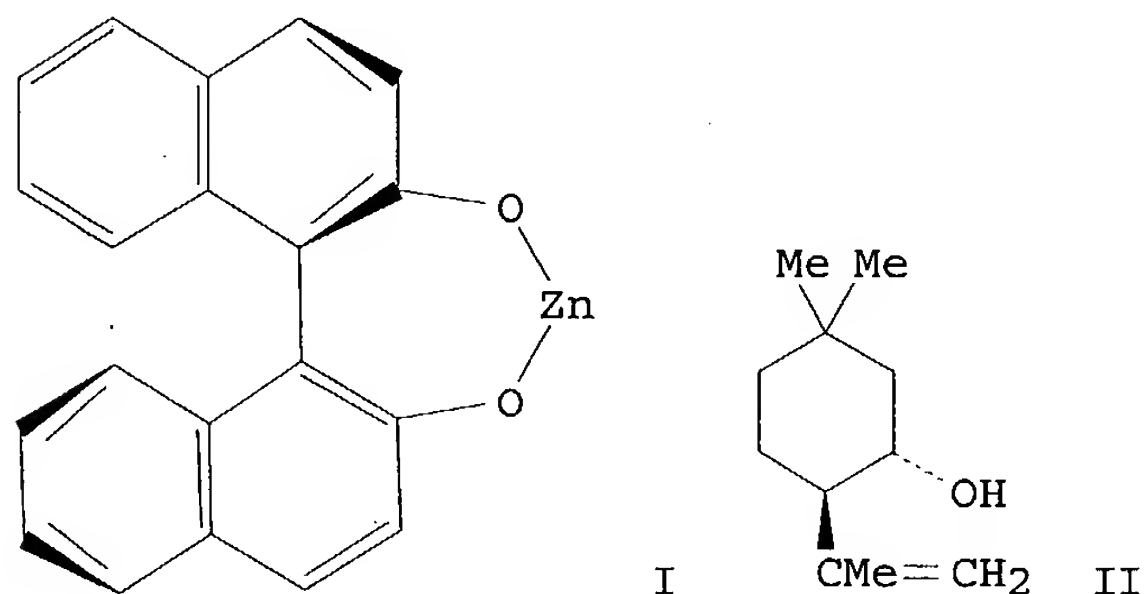
CN Cyclohexanol, 5-methyl-2-(1-methylethenyl)-, (1S,2R,5S)- (9CI) (CA INDEX NAME)



Absolute stereochemistry. Rotation (+).

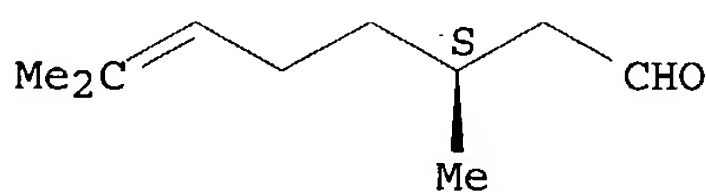


L39 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1986:591413 CAPLUS  
 DN 105:191413  
 TI Asymmetric cyclization of unsaturated aldehydes catalyzed by a chiral Lewis acid  
 AU Sakane, Soichi; Maruoka, Keiji; Yamamoto, Hisashi  
 CS Dep. Appl. Chem., Nagoya Univ., Nagoya, 464, Japan  
 SO Tetrahedron Letters (1985), 26(45), 5535-8  
 CODEN: TELEAY; ISSN: 0040-4039  
 DT Journal  
 LA English  
 OS CASREACT 105:191413  
 GI



AB A highly enantioselective cyclization of prochiral unsatd. aldehydes has been accomplished with a chiral Zn reagent I derived from dimethylzinc and (R)-1,1'-bi-2-naphthol. Thus, treatment of  $\text{Me}_2\text{C}:\text{CHCH}_2\text{CH}_2\text{CMe}_2\text{CH}_2\text{CHO}$  with I gave alc. II in 91% yield and 90% enantiomeric excess.  
 IT 5949-05-3  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (asym. cyclization of)  
 RN 5949-05-3 CAPLUS  
 CN 6-Octenal, 3,7-dimethyl-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



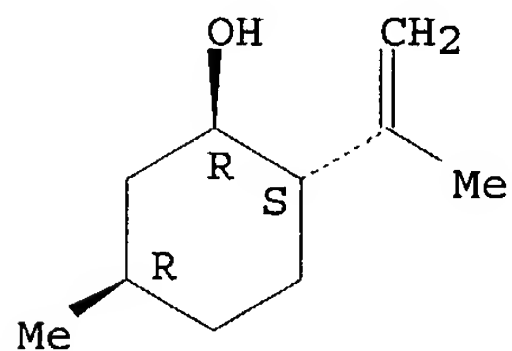
IT 89-79-2P 104870-56-6P  
 RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of, by asym. cyclization of unsatd. aldehyde)

RN 89-79-2 CAPLUS

CN Cyclohexanol, 5-methyl-2-(1-methylethenyl)-, (1R,2S,5R)- (9CI) (CA INDEX NAME)

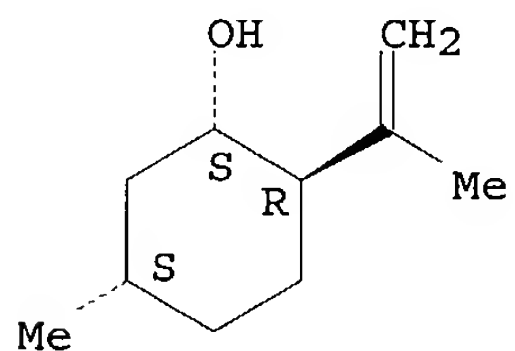
Absolute stereochemistry. Rotation (-).



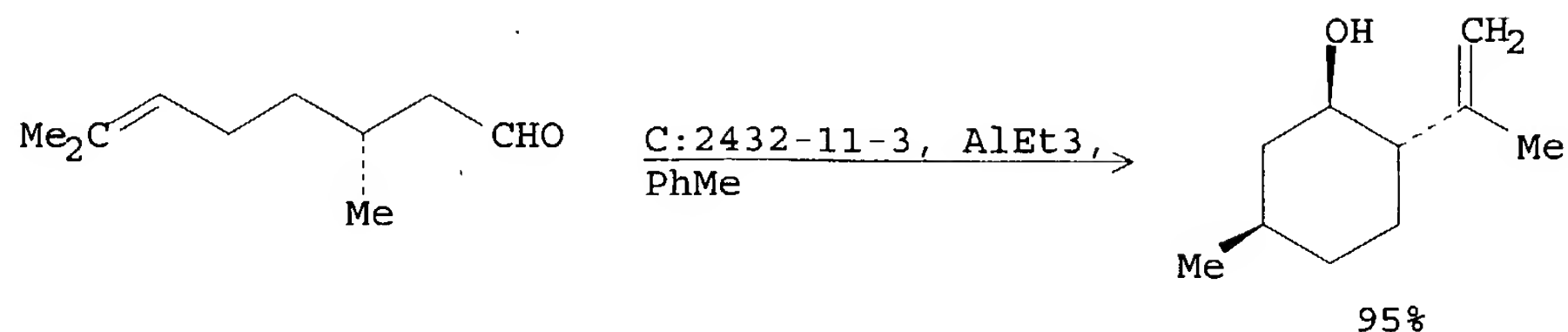
RN 104870-56-6 CAPLUS

CN Cyclohexanol, 5-methyl-2-(1-methylethenyl)-, (1S,2R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



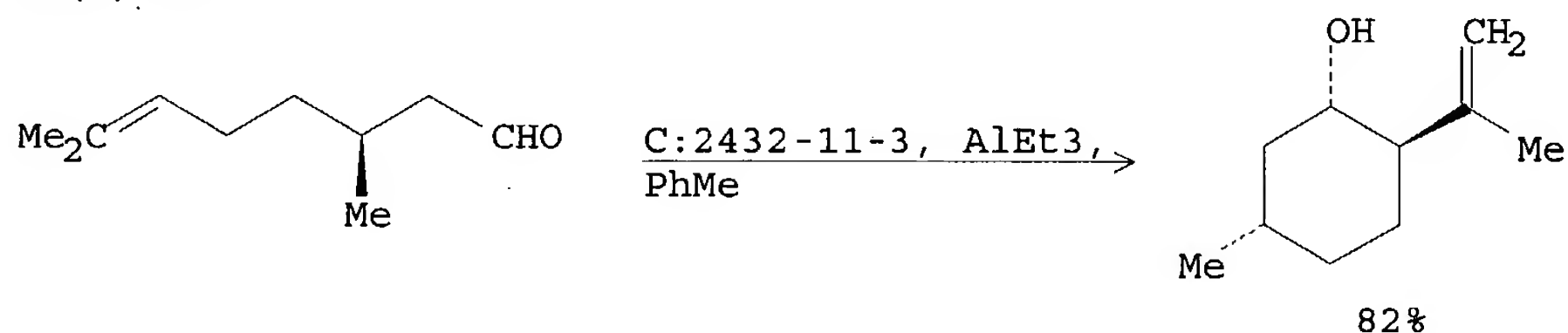
RX(1) OF 3



REF: Eur. Pat. Appl., 1225163, 24 Jul 2002

NOTE: stereoselective, other product detected, catalyst generated in-situ, optimization study

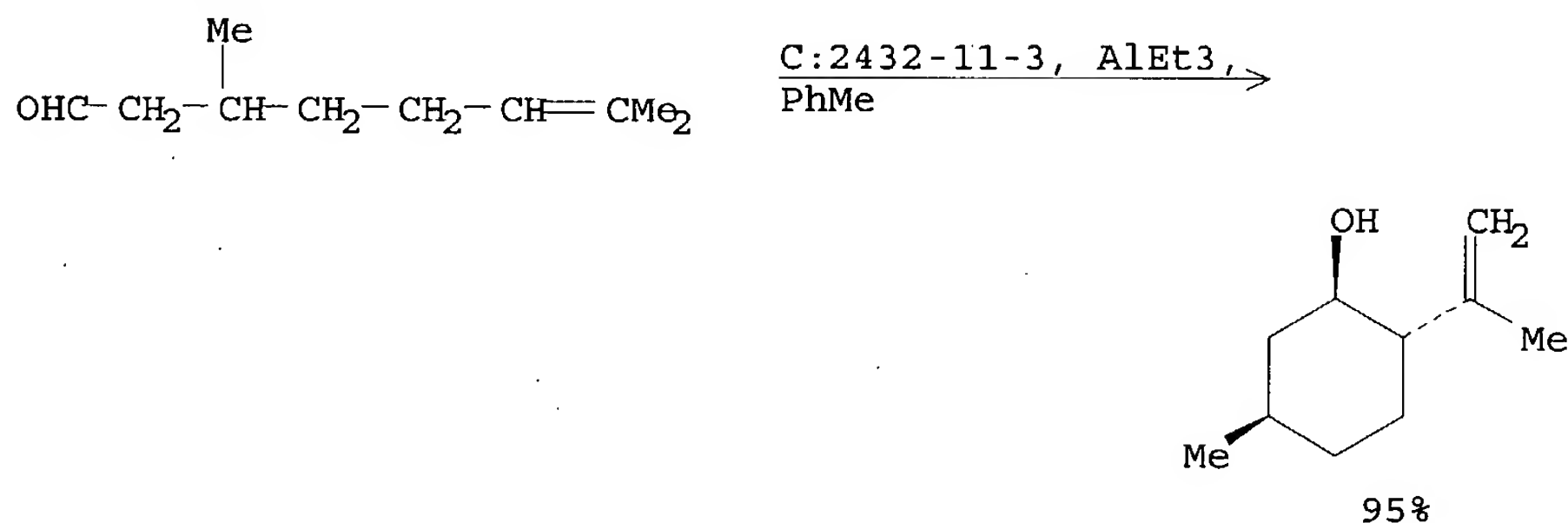
RX(2) OF 3



REF: Eur. Pat. Appl., 15 pp.; 2002

NOTE: stereoselective, catalyst generated in-situ, other product detected

RX(3) OF 3



REF: Eur. Pat. Appl., 15 pp.; 2002

NOTE: catalyst generated in-situ

AN 137:124927 CASREACT

TI Process for producing isopulegol by citronellal selective cyclization over tris(2,6-diarylphenoxy)aluminum catalysts

IN Iwata, Takeshi; Okeda, Yoshiki; Hori, Yoji

PA Takasago International Corporation, Japan

SO Eur. Pat. Appl., 15 pp.

CODEN: EPXXDW

DT Patent

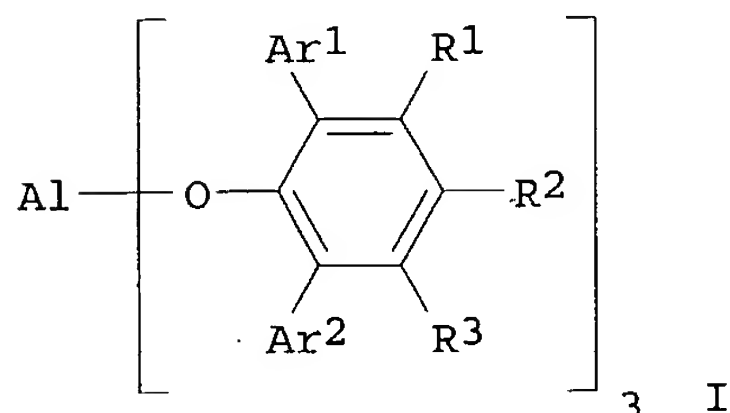
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1225163	A2	20020724	EP 2002-464	20020108
	EP 1225163	A3	20040114		

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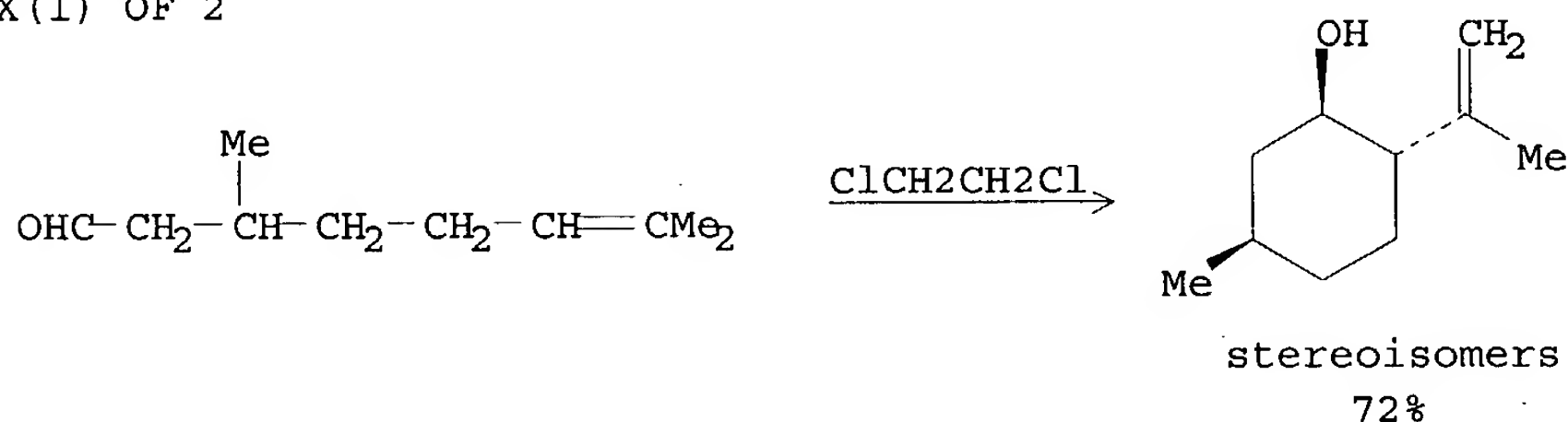
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
 JP 2002212121 A2 20020731 JP 2001-10527 20010118  
 US 2002133046 A1 20020919 US 2002-45157 20020115  
 PRAI JP 2001-10527 20010118  
 OS MARPAT 137:124927  
 GI



AB A process for producing L-isopulegol by simple operations with safety in high yield. A process for producing isopulegol, which comprises selectively cyclizing citronellal in the presence of a tris(2,6-diarylphenoxy)aluminum catalyst represented by the following general formula (I) : wherein Al represents an aluminum atom, Ar1 and Ar2 each represent a substituted or unsubstituted aryl group or a heteroaryl group; and R1, R2 and R3 each represent a hydrogen atom, a halogen atom, an alkyl group having 1 to 8 carbon atom(s), an alkoxy group having 1 to 8 carbon atom(s), a substituted or unsubstituted aryl group, a dialkylamino group having 1 to 4 carbon atom(s), or a nitro group.

L46 ANSWER 2 OF 4 CASREACT COPYRIGHT 2004 ACS on STN

RX(1) OF 2



REF: Synthesis, (1), 52-54; 2001

NOTE: Al/Fe-Pillared clay catalyst, optimization study, stereoselective

AN 134:237661 CASREACT

TI Cyclization of citronellal to menthone and isomenthone catalyzed by Al/Fe-pillared clays

AU Cramarossa, Maria Rita; Forti, Luca; Pagnoni, Ugo Maria; Vidali, Maurizio  
 CS Dipartimento di Chimica, Universita di Modena e Reggio Emilia, Modena, 41100, Italy

SO Synthesis (2001), (1), 52-54  
 CODEN: SYNTBF; ISSN: 0039-7881

PB Georg Thieme Verlag

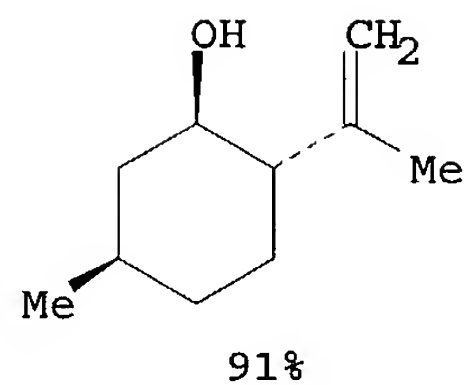
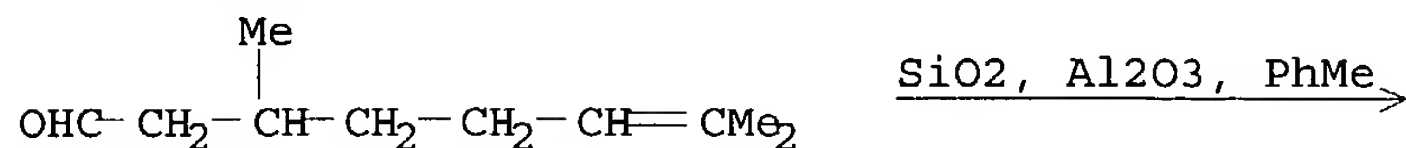
DT Journal

LA English

AB The cyclization of citronellal to a mixture of menthone and isomenthone (2:1) is catalyzed by Al/Fe-Pillared Clay (Al/Fe-PILC) at 80°C in 1,2-dichloroethane in good yield. At room temperature the products are isopulegol and neo-isopulegol, the isomer ratio depending on the reaction conditions.

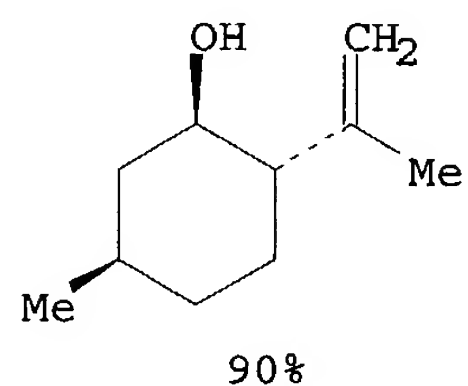
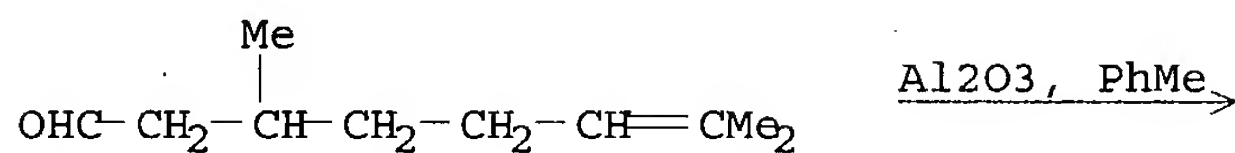
RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

RX(1) OF 14



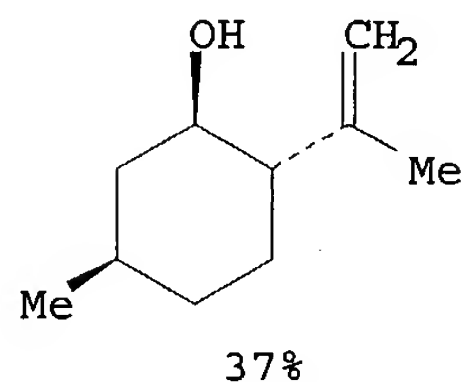
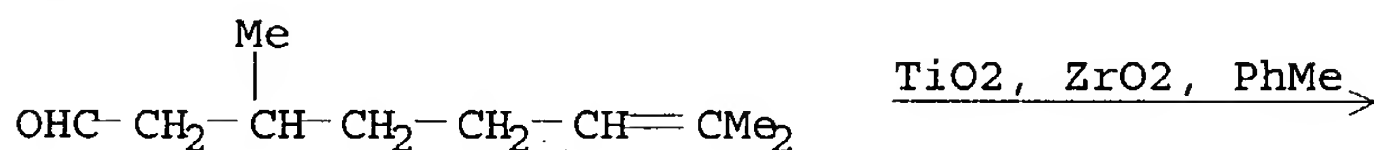
REF: Chemistry Letters, (10), 1797-8; 1989

RX(3) OF 14



REF: Chemistry Letters, (10), 1797-8; 1989

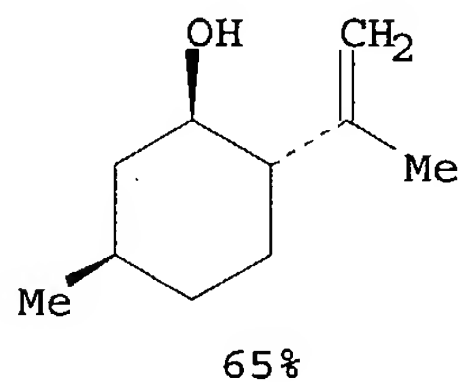
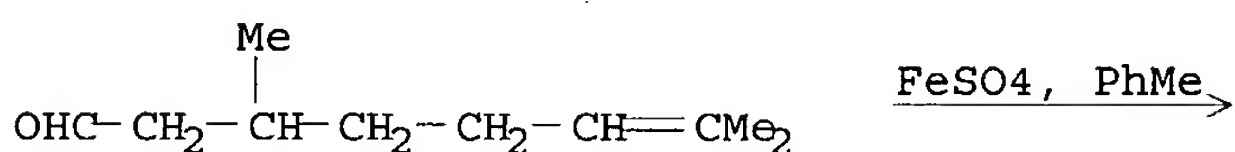
RX(4) OF 14



REF: Chemistry Letters, (10), 1797-8; 1989

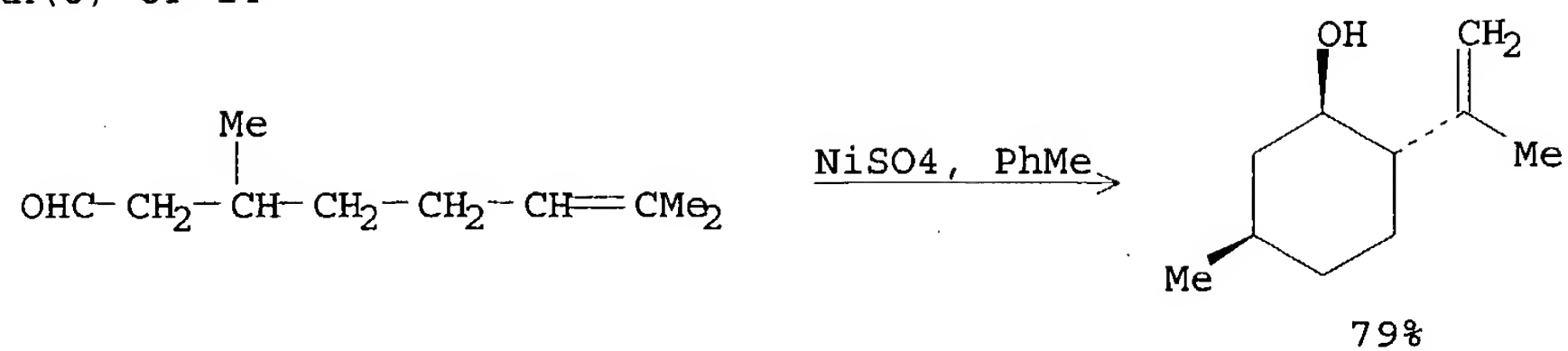
NOTE: 5% overall

RX(6) OF 14



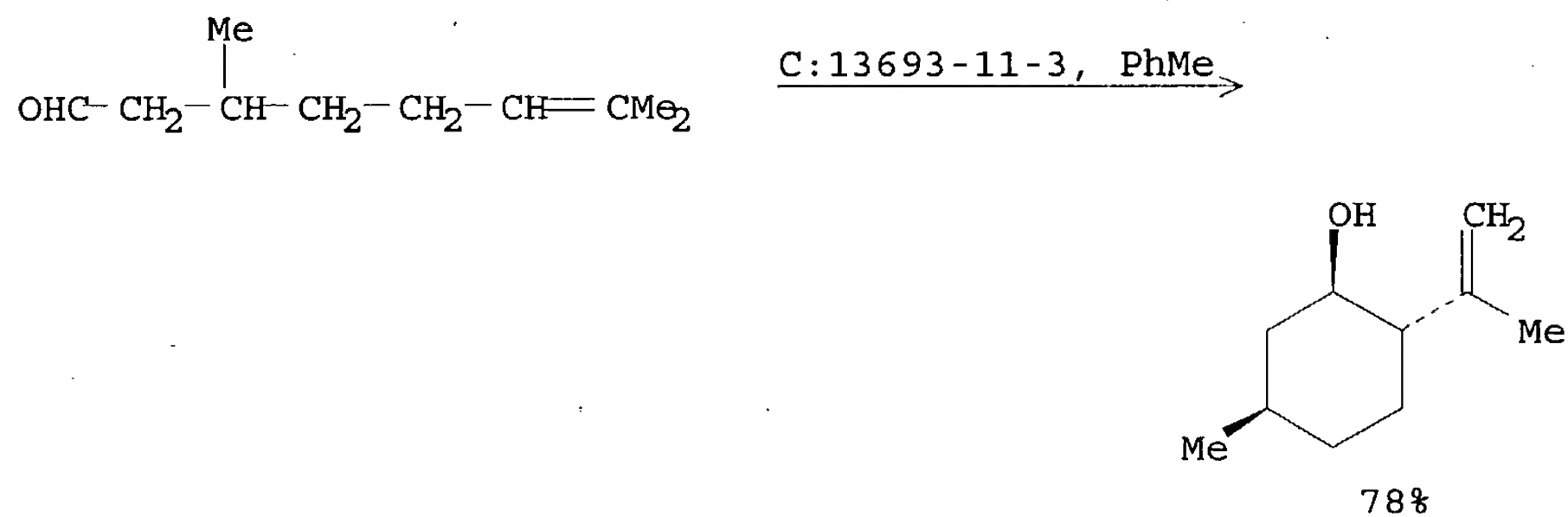
REF: Chemistry Letters, (10), 1797-8; 1989

RX(8) OF 14



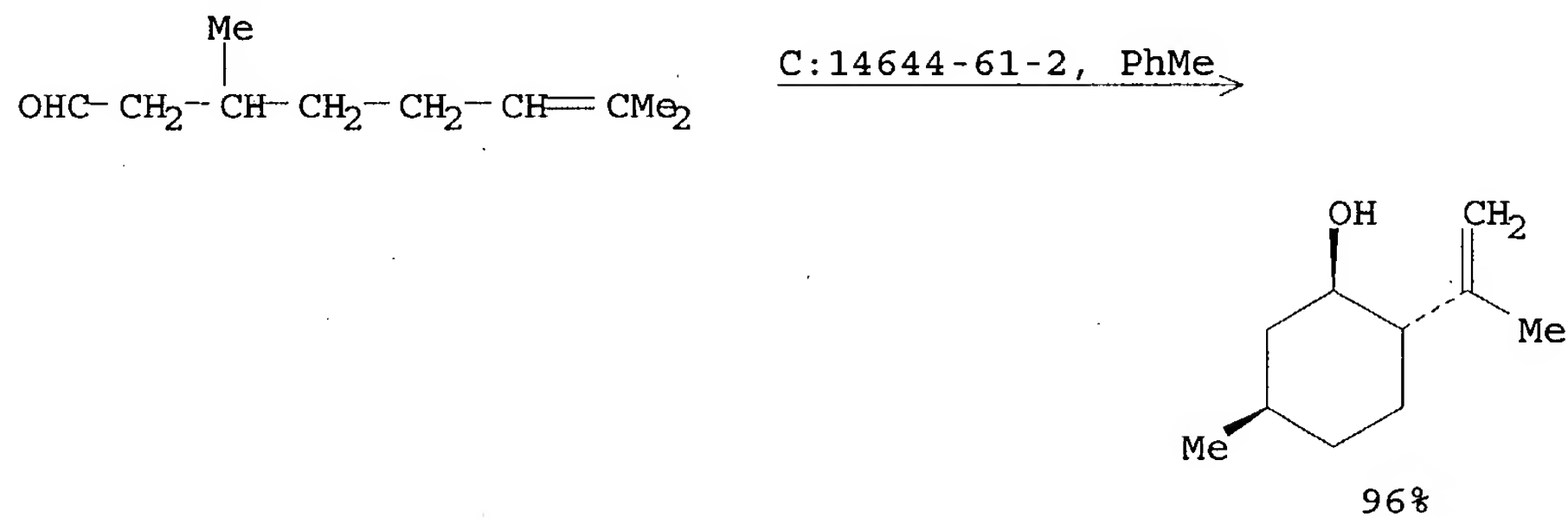
REF: Chemistry Letters, (10), 1797-8; 1989

RX(10) OF 14



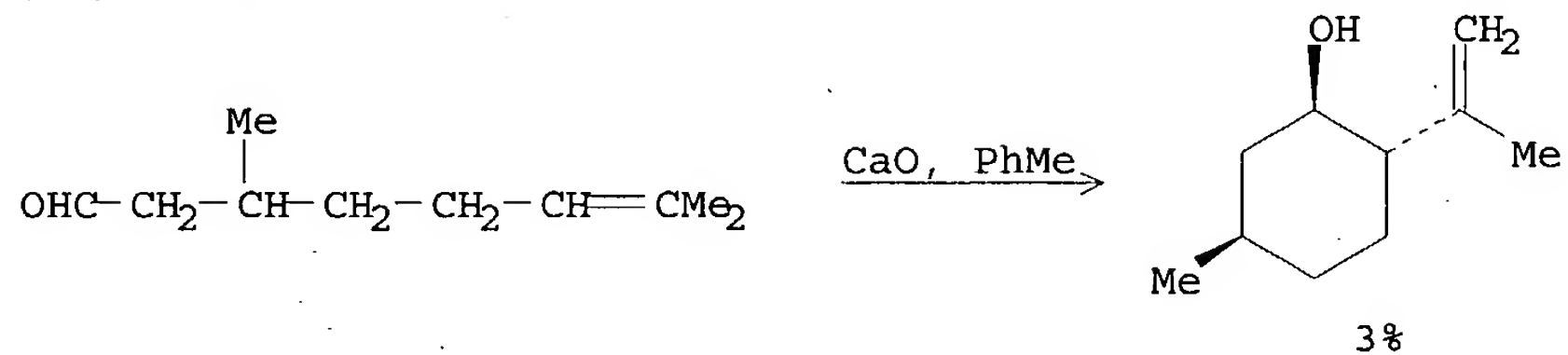
REF: Chemistry Letters, (10), 1797-8; 1989

RX(12) OF 14



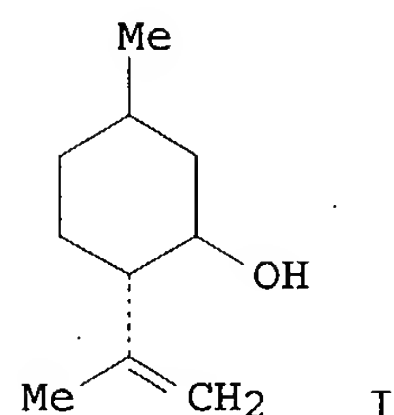
REF: Chemistry Letters, (10), 1797-8; 1989

RX(14) OF 14



REF: Chemistry Letters, (10), 1797-8; 1989

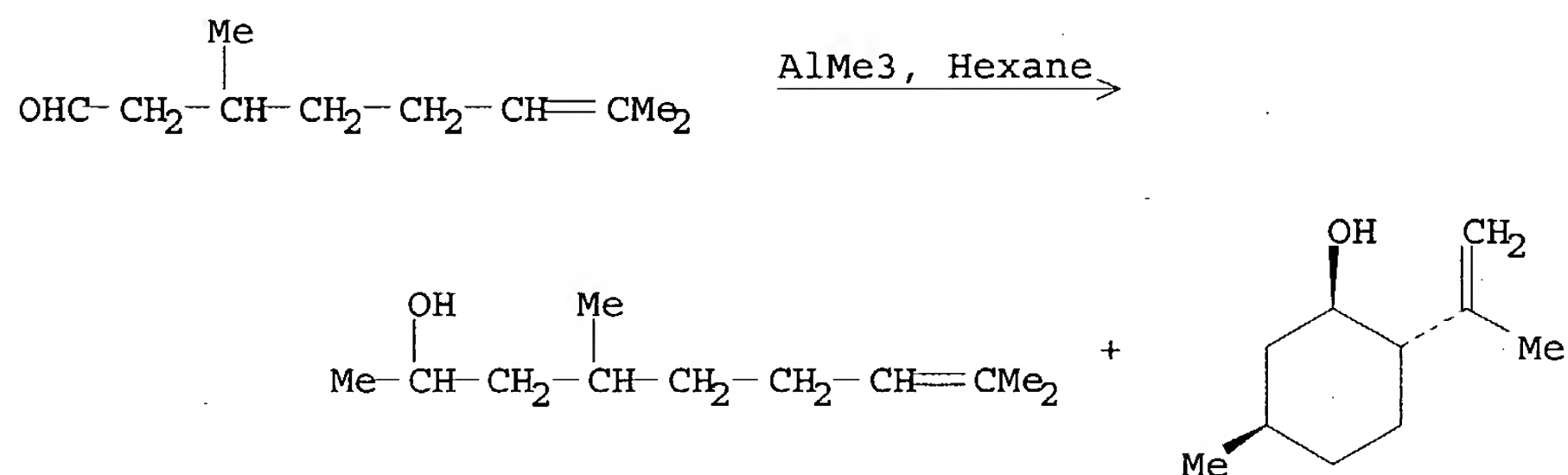
AN 113:6607 CASREACT  
 TI Isomerizations of citronellal to isopulegol and geraniol to linalool  
 catalyzed by solid acids and bases  
 AU Arata, Kazushi; Matsuura, Chiharu  
 CS Hokkaido Univ. Educ., Hakodate, 040, Japan  
 SO Chemistry Letters (1989), (10), 1797-8  
 CODEN: CMLTAG; ISSN: 0366-7022  
 DT Journal  
 LA English  
 GI



AB Citronellal was isomerized to isopulegol (I) over SiO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub>, TiO<sub>2</sub>-ZrO<sub>2</sub>, FeSO<sub>4</sub>, NiSO<sub>4</sub>, Ti(SO<sub>4</sub>)<sub>2</sub>, Zr(SO<sub>4</sub>)<sub>2</sub>, and Al<sub>2</sub>O<sub>3</sub>, with selectivity higher than 91%. Geraniol was also isomerized mainly to linalool over SiO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub> and the four metal sulfates, and where the selectivity on SiO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub> and FeSO<sub>4</sub> was higher than 81%.

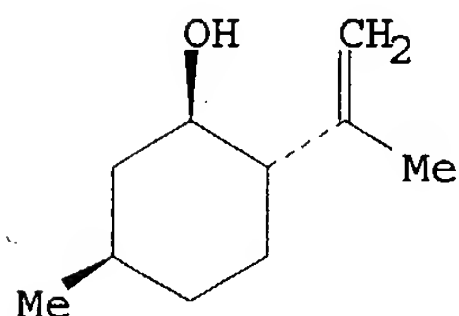
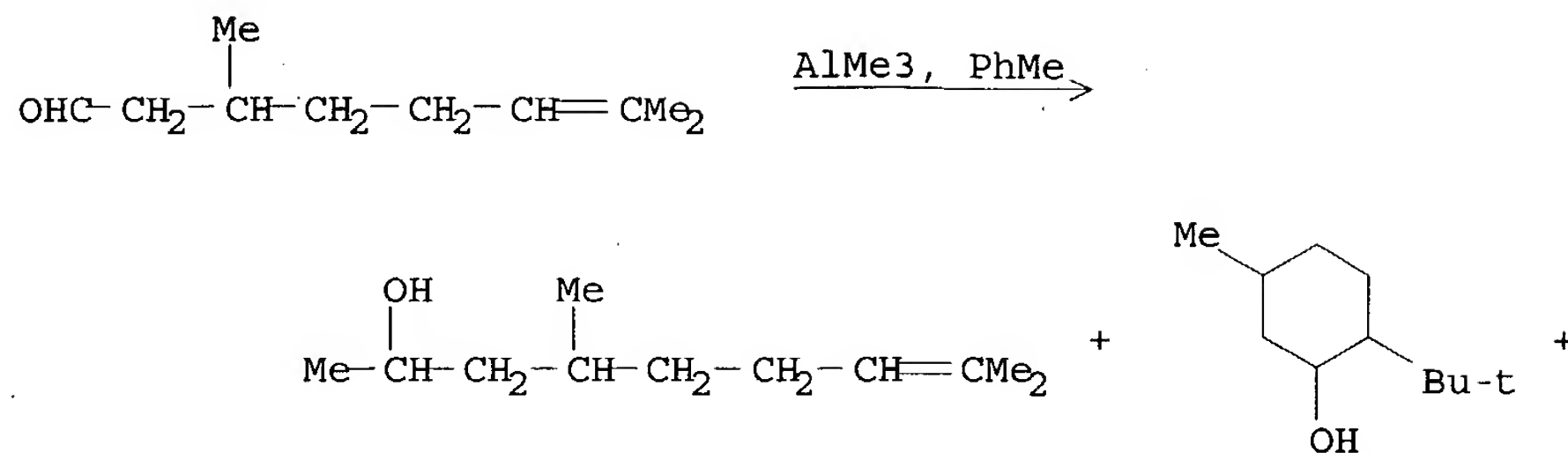
L46 ANSWER 4 OF 4 CASREACT COPYRIGHT 2004 ACS on STN

RX(1) OF 13



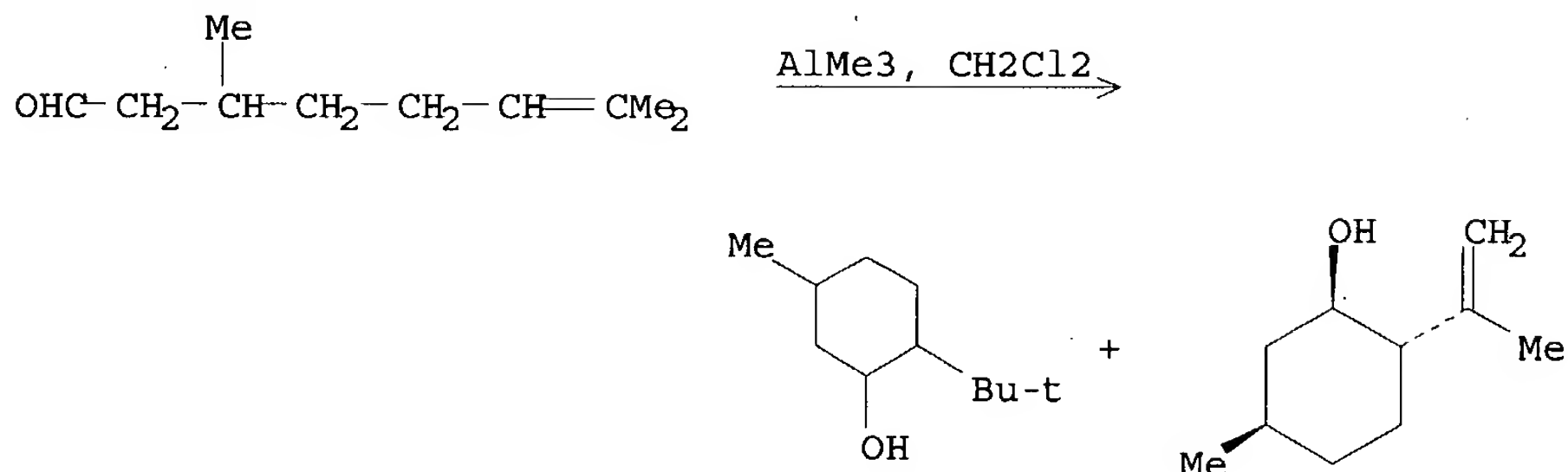
REF: Nippon Kagaku Kaishi, (3), 324-7; 1985

RX(2) OF 13



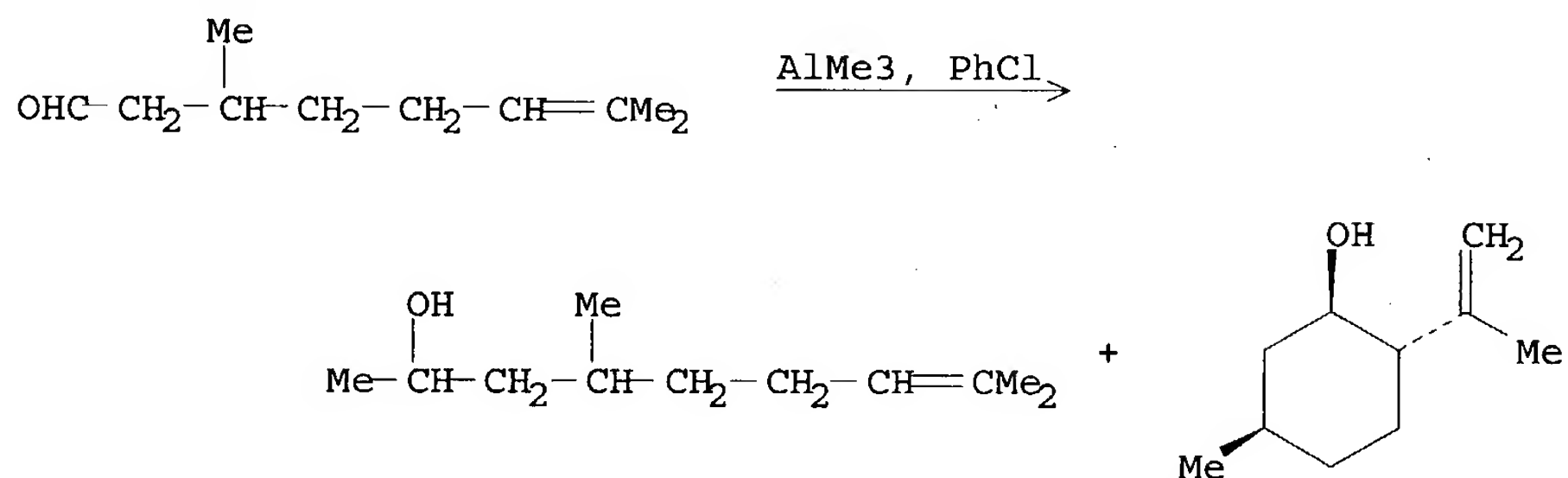
REF: Nippon Kagaku Kaishi, (3), 324-7; 1985

RX(3) OF 13



REF: Nippon Kagaku Kaishi, (3), 324-7; 1985

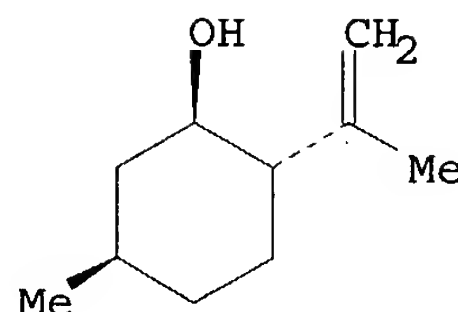
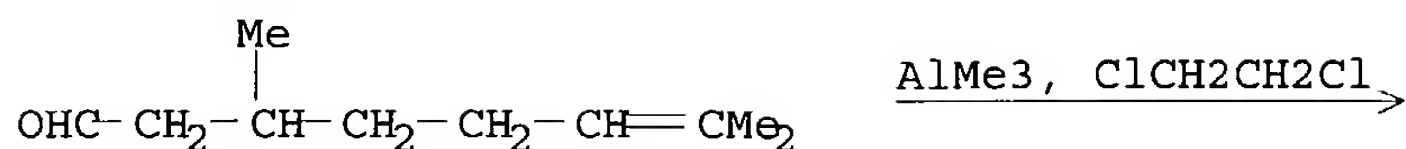
RX(4) OF 13



REF: Nippon Kagaku Kaishi, (3), 324-7; 1985



RX(5) OF 13



REF: Nippon Kagaku Kaishi, (3), 324-7; 1985

AN 104:109961 CASREACT

TI **Organoaluminum** induced cyclization of unsaturated aldehydes

AU Sakane, Soichi; Maruoka, Keiji; Yamamoto, Hisashi

CS Dep. Appl. Chem., Nagoya Univ., Nagoya, 464, Japan

SO Nippon Kagaku Kaishi (1985), (3), 324-7

CODEN: NKAKB8; ISSN: 0369-4577

DT Journal

LA Japanese

AB Pronounced solvent and temperature effects on the course of **trialkylaluminum**-induced cyclization of unsatd. aldehydes were observed. Thus, unimol. decomposition of the 1:1 complex of Me<sub>3</sub>Al-citronellal at

-78°C to room temperature gave an acyclic methylated compound, isopulegol as a cyclization-deprotonation product, and/or a methylated cyclization product depending on the choice of solvents. The acyclic compound was obtained predominantly in hexane, while isopulegol was produced exclusively in (ClCH<sub>2</sub>)<sub>2</sub>. Furthermore, the methylated cyclization product was formed with the highest selectivity using excess Me<sub>3</sub>Al at low temperature. In contrast, the 1:1 complex of other **trialkylaluminum**-citronellal complexes decomposed upon warming to room temperature to furnish a reduction product, citronellol, as a major product. Me<sub>2</sub>C:CHCH<sub>2</sub>CH<sub>2</sub>CMe<sub>2</sub>CH<sub>2</sub>CHO showed a similar variation in reactivity under the above conditions.